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### TREATMENT OF COMPOUND FRACTURES AT THE HARTFORD HOSPITAL\*

BY PAUL P. SWETT, M.D., F.A.C.S.

IN the treatment of compound fractures at the Hartford Hospital certain things have gradually come to seem of paramount importance. Of course, the whole problem involves numerous factors which are, perhaps, equally important, but our experience has led us to believe that there are particular factors which are not customarily considered and the importance of which is such that we are warranted in discussing them in some detail. It is, therefore, the purpose of this paper to bring these matters to your attention and then to show by a statistical study what has been accomplished in the way of actual results. It is not the purpose of this paper to attempt a complete dissertation on the subject of the treatment of the compound fractures, however.

The first consideration deals with the necessity for prompt operative cleansing and reduction of the fracture; the second deals with the importance of closing the skin promptly for the purpose of covering the bone and the soft tissues; the third consideration deals with the importance of adequate immobilization of the part; and the fourth concerns the importance of secondary dressings.

With regard to the desirability of prompt operation, it has seemed to us that every compound fracture is best treated by operation under full general anaesthesia as soon after the onset of the injury as the patient's condition will permit. We, therefore, regard compound fractures as acute emergency surgery and, as a rule, if the case is brought in before midnight, the operation is done during the evening. Cases brought in after midnight are often allowed to wait until the early morning. We found before we adopted our present plan that a good many compound fractures seemed to become infected several days after the injury and we convinced ourselves that these somewhat delayed infections were probably caused by contaminations incidental to Ward dressings and that the number and extent of these infections were increased in proportion to the extent of the soft tissue damage and skin defects. We, therefore, in the primary operations

make every effort to close the skin and to remove all of the badly contused or lacerated soft tissues. The skin, however, is closed loosely and no effort is made to close the muscle layers or the fascia. After the dissection is finished, bleeding is carefully stopped and all parts of the wound are given abundant drainage with rubber tubes which are preferably brought out through the original or enlarged opening through the skin, but, occasionally, when the damage in the deep parts of the wound has been extensive, counterdrainage is also supplied. When the wound is first opened and enlarged, aerobic and anaerobic cultures are taken. The extremity is immobilized in a circular plaster cast in the position which permits the fracture fragments to remain in the best apposition and alignment. No effort is made to fix the fragments by any means of direct fixation because of the added trauma thus necessitated and because of the increased risk of infection.

Tetanus antitoxin is given as a routine and no window is cut in the cast. Following this first operation, if the patient's temperature does not become high, and if the cultures do not show gas bacillus or streptococcus haemolyticus, the situation is left alone for three days. At the end of that time the patient is taken to the operating room, given a general anaesthetic, the entire cast is then removed and if the drainage is not pussy and the skin edges are not sloughing, the tubes are removed, a dry sterile dressing is applied and the fracture again immobilized in a circular plaster cast. If, however, the wound is infected, the loose skin sutures are removed and the infection is treated by the Carrell-Dakin method.

As a rule our first efforts at cleansing the wound are carried out in the operating room by means of a two stage operative preparation. The operator, himself, had best carry out the first steps of this skin preparation by scrubbing the entire part thoroughly with green soap and then shave it, rinse off the skin with sterile water and dry with ether. The assistant then takes the relatively clean skin, scrubs the part with benzine and then covers the skin with tincture of iodine, four per cent. which is allowed to remain. The

\*Read at the Annual Meeting at Manchester, N. H., September 30, 1927.

region is then draped in the customary way with sterile towels and sheets while the operator and assistant change their gloves and gowns and proceed with the operation.

With regard to the importance of early operation, it seems clear and obvious that since the most important thing in the care of compound fractures is to prevent infection, the earlier the damaged tissue can be removed, the less likelihood there will be for the development of infection. Severely contused or lacerated soft tissues have very little resistance to infection by reason of interrupted blood supply. Prompt closure of the skin likewise provides against the presence of a long-continued open wound directly over the fracture site and thus becomes a cloak or barrier to the introduction of subsequent infection, besides which covering of the damaged bone and soft tissues by healthy skin removes the possibility of irritation by dressings and keeps these tissues in a far healthier condition, thus improving their resistance to infection.

We have abandoned the use of splints because our experience has shown that the immobilization they provide is less adequate and effective and it appears to be important to fix the fragment and surrounding soft tissues thoroughly in order to prevent the additional trauma which occurs with imperfect fixation.

With regard to the importance of the secondary dressings, we have become convinced that as a practical matter, it is impossible to do aseptic dressings outside of the operating room. A dressing which requires handling of the parts, changing a cast and removing the drainage tubes is a procedure of sufficient extent and gravity to warrant and to merit a full aseptic technique. In our experience, such a technique can only be followed out in the operating room and under the same plan as is used in any major operation.

The plan of treatment which we have thus outlined has been in effect with us for the past seven years. We have taken the cases for study which occurred during the five-year period, from 1921 to 1925 inclusive. There were in this series, a total of thirty-nine compound fractures, distributed as follows:

Tibia and fibula	24
Radius and ulna	7
Femur	4
Patella	2
Humerus	2

We have always found in studying any of our statistics some element of surprise in the results and we were considerably surprised in this instance to find such a small total of compound fractures. We can only explain it on the theory that the Hartford Hospital receives a large proportion of its cases by reference from the attending staff and does not under any circumstances receive a large number of acute traumatic cases. In this group of thirty-nine com-

ound fractures, there were nine infections, which amounts to 23% of the cases. These infections occurred once in the radius and ulna, eight times in the tibia and fibula, that is to say 88.6% of the total infections occurred in the tibia and fibula, and this is interpreted not only as a commentary on the greater frequency of such fractures in the tibia and fibula but also as significant of the importance of closing the skin because it is obvious that adequate skin closure in the leg is not as easily obtained as it is in the forearm, thigh or arm. Of these nine infected cases, 3 or 7.6% developed osteomyelitis. Other local complications which occurred are listed as follows:

Bone grafts required	2 or 5%
Necrosis of bone without infection	3 or 7.7%
Soft tissue slough	1 or 2.5%
Delayed union	6 or 15%

The results are listed as follows:

Amputations	3 or 10%
Permanent nonunion	1 or 2.5%
Large bone defect	1 or 2.5%
Ankylosis of the knee	1 or 2.5%
Nerve damage (ulna nerve)	1 or 2.5%
Deaths (due to abdominal injury)	1 or 2.5%
End results, regarded as good	29 or 72.5%
Unknown results	2 or 5%
Poor results	8 or 22.5%

One amputation was for gas gangrene, in an elderly woman whose injury occurred when she was knocked down by an automobile on a sidewalk. Of the two other amputations, one was necessitated because of severe infection attended by such extensive soft part damage that the circulation distal to the fracture site was seriously interrupted.

The second amputation was elected because of a stubborn osteomyelitis of the tibia which developed in a compound fracture of the leg already weakened by a rupture of the crucial ligaments of the knee.

Nothing in our experience provides a reliable guide as to the probability of gas bacillus infection in a given case, but we should and do seriously question the advisability of closing the skin at all in the very badly lacerated cases which occur in close contact with garden earth. With this exception we feel the principle of early closure is sound.

We do not know how our results compare with those obtained by other surgeons. We do know that for the five-year period studied, the results are far better than for the previous five-year period and we are certain that increasing experience and facility are showing continued improvement, so that we feel warranted in looking forward to not more than 10% of infections in the next five-year group.

It is our conviction, therefore, that the attitude towards compound fractures should be changed. Instead of regarding such injuries as potentially infected and to expect suppuration as the almost inevitable outcome, we should

aggressively set to work and at once convert the wound into a clean wound and handle it in such a manner as to prevent subsequent infection.

#### DISCUSSION

ROBERT B. OSGOOD, M.D., F.A.C.S., Boston: (The Secretary, Dr. Birnie, read Dr. Osgood's discussion from ms.)

We agree with the author's statement that the first considerations in the treatment of compound fractures are the prompt operative (not necessarily extensive operative) cleansing of the wound of the soft parts and the reduction of the fracture. If one employs splints of the Thomas arm or leg type, a partial reduction may be accomplished even before the operative procedure is possible and the operation may be performed with the splint *in situ*, the reduction being completed on the table. If soiled bone protrudes primary cleansing is of course essential before reduction. Sinclair's recent book on the Thomas splint describes his simple and efficient war-tested technique. This is of greatest advantage in fractures of the lower limb and 30 of Swett's 39 cases of compound fracture were of the lower limb.

The old question of the type of immobilization is raised, namely, plaster of Paris casts or open wire splints with integral or weight and pulley traction. Each surgeon will use the tool he likes best.

We agree that delayed dressings, as long as all is well, and aseptic operating room dressings are of great advantage if the initial culture shows no haemolytic streptococci or gas bacilli. We have an instinctive dislike of rubber drainage tubes in compound fractures for drainage alone. Rubber tissue drains would seem to serve as well and be less likely to threaten hemorrhage and favor sinus formation and sequestration. If one adheres to the Carrel-Dakin treatment and antiseptic irrigations, they are obviously necessary, but the recent work of Orr and the published experience of Sinclair at least reopen the question as to whether any antiseptic treatment requiring frequent dressings will yield as large a number of good results in as short a time as the aseptic treatment and infrequent dressings.

The author's record of sepsis is admirable. To have had only 3 out of 39 cases of compound fracture on a general hospital develop service an osteomyelitis, is a fine showing and deserves congratulation.

J. S. STONE, M.D., F.A.C.S., Boston: I would like to ask about the advisability of drainage tubes as a regular routine procedure.

BENJAMIN H. ALTON, M.D., F.A.C.S., Worcester: In answer to the question just asked it is very difficult in a great many of these cases where we have compound fractures even when careful cleansing has been applied, to know whether the bones are clean. I had more or less experience with this type of thing in the war. I

see very little of it at the present time. In the war cases we very seldom closed the wound after cleansing but we did use great deal of the Carrel-Dakin treatment by leaving one or more tubes in the wound and giving definite irrigation and then following by culture we found that we had very good results with the Carrel-Dakin method.

GEORGE A. LELAND, JR., M.D., F.A.C.S., Boston: It seems to me that when we come to discuss compound fractures we have got to draw very distinct lines as to whether the compound wound is formed from within or whether it is caused by the primary violence. The latter type of case might be called a massive compound fracture. At the Massachusetts General Hospital ten to fifteen years ago, before the War, cases of compound fractures of either of these two types were treated in the identical way Dr. Swett has outlined. In the cases of massive compound fracture we had distressing results with severe sepsis and osteomyelitis. With the war experience and with the Carrel-Dakin treatment the condition has changed absolutely, and today those cases of the massive compound type are all treated with the Carrel-Dakin method, and we believe much more satisfactorily, though I haven't the statistics to offer this afternoon.

As for the Carrel-Dakin treatment and the method, many people feel that it is a fussy procedure, hard to carry out, that the solution must be freshly prepared and not exposed to the sunlight. That may be true of Dakin's solution. Dr. Sherman of Pittsburgh has pointed out, however, that the Hyclorite solution which is on the market can be used in place of the Dakin's solution and just as satisfactorily. So there we have one objection to the method abolished. It is perfectly true that the Carrel-Dakin method is fussy and details have to be carefully applied, but it isn't so fussy as to be impossible for a trained nurse to carry out.

We believe that these massive compound fractures should not be closed after the debridement but should have Carrel-Dakin treatment first.

P. P. SWETT, M.D., F.A.C.S., Hartford (closing): The reason we use drainage tubes is that we are making every possible effort to close the skin, and contrary to the plan at the Massachusetts General Hospital we do close the skin in the massive cases and we think we have obtained better results since this has been done. In the cases where we are unable to close the skin we use the Dakin's solution. The drainage tubes are used to provide treatment during the first 48 hours.

In this series I am not discussing as definitely grouped a classification as Dr. Leland has mentioned. These cases are not all of the massive type, and they do not include those cases that result merely in a puncture wound from internal violence from a sharp-pointed bone which have been treated as simple fractures without doing a debridement.

## ORIGINAL ARTICLES

## A NOTE ON DIFFICULTY IN TURNING OVER IN BED

BY GEORGE BLUMER, M.D.

IN these days of laboratory investigation it may appear almost frivolous to discuss so simple a symptom as difficulty in turning over in bed. Nevertheless, its diagnostic importance in certain types of disease has been impressed upon me so frequently in recent years that at least a brief consideration seems warranted. This is further justified by the lack of discussion in medical literature of this particular form of incapacity.

One would, of course, expect that difficulty in handling oneself in bed or turning over in bed might occur in any sufficiently painful affection involving the muscles or fasciae of the trunk or back, or the bones or joints of the spinal column or pelvis. Painful affections of neighboring large joints, such as the shoulder and hip joints, might also be expected to cause difficulty, but here the cause would be obvious, as it also would if the disability was due to muscular paralysis or extreme debility.

Observation of patients with painful affections of the muscles, bones or joints of the trunk confirms the view that difficulty in turning in bed is a common symptom in such cases. In *lumbago*, for example, the disability is well-known and is often extreme. As Jonathan Hutchinson says "The sufferer cannot turn in bed or attempt to rise from it; he dare not even cough." In the acute stage of *arthritis of the vertebral joints* inability to lie with comfort in some particular position is perhaps more common than disability in turning, though this also occurs. In *sacro-iliac disease* difficulty in turning in bed is not common but may occasionally be the presenting symptom. In *sciatica* and *spinal cord tumors* this form of disability is apparently quite rare. In *Pott's Disease*, during the acute stages, and in *typhoid spine* difficulty in turning in bed may be a marked feature.

The chief purpose of this communication is to call attention to the diagnostic importance of difficulty in turning in bed as a symptom in *metastatic carcinoma* of the spinal column and adjacent structures. The patients in whom this symptom has been observed may be divided into two groups, (1) those in whom the diagnosis is easy on account of the obvious presence of a malignant neoplasm or the history of the removal of one, and (2) those in whom the neoplasm is hidden and perhaps entirely unsuspected. Needless to say the diagnostic value of difficulty in turning in bed is much greater in the second group.

Most of the cases falling within the first

group that I have observed have been women suffering from cancer of the breast or with a history of removal of a breast cancer. A summarized history will elucidate this point.

Mrs. B. Complete removal of right breast for carcinoma in July 1916. In November 1916 pain and stiffness in the right arm and shoulder, worse in wet weather and at night. In December 1916 pain in the back running down both legs. The patient has difficulty in walking. *She cannot turn over in bed.* No sphincter involvement or sensory changes.

Examination shows no local recurrence. There are localized râles at the apex of the left lung and in the left anterior axillary line. The liver is enlarged, hard, tender and nodular. There is slight loss of power in the left leg. The deep reflexes in the left leg are increased but there is no ankle clonus. X-rays show absorption of local areas in several ribs and nodules in the lung. Death: no autopsy.

The group of patients suffering from hidden carcinoma were nearly all victims of cancer of the prostate. It was particularly in this group of patients that difficulty in turning in bed was of great diagnostic value, for in several of them there were no urinary symptoms and the possibility of hidden malignancy had not even been considered. A summarized history will illustrate such a case.

Mr. X, aged 70. There was gradual loss of weight with anorexia lasting over two years. For some months there was difficulty in going up and down stairs. The patient walked with a cane. There was extreme nervousness. A marked anemia was present. There were no urinary symptoms.

The patient was in bed when seen and when requested to move from the left to the right side of the bed *marked disability in moving in bed* was at once apparent. The patient had to haul himself slowly across the bed by grasping the head of the bed. He was pale and markedly emaciated. There was tenderness over the lower ribs on the right side. The internal organs were negative except for a palpable spleen. There were contractures of both knees. The deep reflexes were sluggish. The prostate, especially the right lobe, was considerably enlarged and of almost stony hardness. The x-ray showed areas of enlargement on several ribs with rarefaction of bone. The patient gradually failed and died four months later; no autopsy.

## CONCLUSIONS

(1) Difficulty in turning over in bed may occur in any painful affection of the muscles of the trunk or their fasciae or in any disease involving the bones or joints of the vertebral column or the pelvis.

(2) It is of diagnostic value chiefly in patients who have hidden carcinoma, especially of the prostate, with involvement of the spinal column and adjacent structures.

## A PHYSICIAN OF YESTERDAY

BY JOSEPH GARLAND, M.D.

THE nineteenth century—the century of achievement in the arts and crafts and sciences—was the stage on which many of the most momentous scenes of human progress were enacted. Our own profession, embodying the art and the science of medicine, played no small part in this latter day renaissance. Louis Pasteur was born in 1822, Joseph Lister in 1827, and the stream of intellectual activity liberated by these two men touched as with a magic wand the scholarly but conservative and dogmatic medicine of the day, awakening it into an activity which still continues with undiminished vigor.

The aspirations and ideal of medicine have, we believe, remained the same through all the centuries, for they have been based on the fundamental concept of service to humanity. "To cure rarely," a noted Frenchman gave as the functions of his profession, "to alleviate often, to comfort always." Thus the humanistic side of medicine, sometimes lost sight of, sometimes beclouded by other and less idealistic interests, has nevertheless remained the mark of distinction which has generally designated the physician.

That generation of physicians which received its education and was sent out, apostolically, to minister to its lay brethren some fifty years ago was in a peculiarly happy and enlightened situation. Not only had it been irradiated with the clear and searching light of scientific truth which the medical renaissance had shed upon it, but it had been brought up in and imbued with the kindly spirit of the preceding generation, in whose school experience and wisdom and patience had perforce to fill the place of an insight into miseroscopic pathology and a knowledge of microbic invasion. No generation has had a better opportunity of learning the science and practicing the art of medicine than that which passed through our medical schools and our hospitals of fifty years ago.

General practice was the rule in 1877, and specialization was the exception. Even our larger cities of that day would seem provincial to us as compared to their present trends, and practice in the smaller cities was of that independent, partially rural type which, we are told, is vanishing to the detriment of our broad countrysides. The lonely night vigil is becoming a thing of the past; the candle-lighted kitchen table is almost obsolete as an adjunct to major surgery; practice is becoming somewhat easier, somewhat less personal, and perhaps somewhat less kind. Modern conditions of travel have rendered the city more accessible, and with the greater availability of scientific methods a certain sturdy independence in medicine is be-

ing lost. Few of the graduates of 1877 are left among us now; the conditions under which they lived and worked will soon be forgotten, and if only for the sake of its reminiscent value, it may be of passing interest to record a few facts in the life of one of these who was of service to his small community.

Joseph Everett Garland, the subject of this sketch, was born in Gloucester, Massachusetts, on November 17, 1851, of New Hampshire stock. His grandfather had been a farmer in Hampton, N. H., and in this town his father, Joseph Garland, had been born in 1822. Joseph Garland had been a school teacher even before entering Dartmouth College in 1840, and after one year in Dartmouth he taught again for a year in Gloucester, before entering Bowdoin College, from which he graduated in 1844. Returning to his former occupation, he again taught in South Hampton and Atkinson Academies, studying medicine in the meanwhile, and eventually graduated from Jefferson Medical College in Philadelphia in 1849. This same year he settled in Gloucester for his life work and pursued a long and honorable career, both in his profession and in general service to the community until his death in 1902, for he served on the School Committee from 1850 to 1855, became mayor of the city in 1879 and was re-elected as a unopposed candidate in 1880. Joseph Everett was the oldest and only survivor of three sons, for Ellesley died in early childhood and Otis in his junior year at Bowdoin College.

Few facts are now available concerning the early boyhood and school days of Joseph Everett Garland save half-forgotten stories told years ago by himself. We know that he attended the public schools and in general behaved like a normal, active school boy, clam-digging and fishing and familiarizing himself with the habits of those who go down to the sea in ships. A popular diversion was shooting the ubiquitous wharf rat—*Mus norwegicus*—which in those days, according to current report, attained the size of the common house cat and was more than a match for it. Fishermen and other seafaring men were, of course, extraordinary idols, and the story was often told of Captain Alexander Patillo, who, on finding seven men struggling down the dock under the weight of a large anchor, took it from them, threw it over his shoulder, and carried it to his vessel.

The fall of 1866 found the boy, now nearly fifteen years of age, enrolled in Phillips Academy at Andover and being thrust among men of far above the preparatory school age, for there were then in the academy many veterans of the Civil War who had returned from the fields of the South to finish their studies. Dis-

ipline was hard to maintain among these returned soldiers and "Uncle Sam" Taylor, stories have it, often had his hands full.

Scraps of the Andover correspondence are still preserved:

Andover, Sept. 12th, 1866.

*Dear Parents and Otis:*

I have just sat down to write home, in my study, on the third floor. The evening is pleasant, although it was rainy this morning. I received your letters this P. M.; they were very acceptable you may be assured. I have lost all my homesickness, although I never had very much, being determined not to have any.

My teacher's name is Mr. Bridgman or "Old Bridg" as the boys call him. He has the repute of being a cross teacher, but so far I have seen nothing to corroborate that statement except that he speaks rather sharp; he is a good man I guess, as I heard he contemplates being a minister and he conducts evening prayers in the chapel, Uncle Sam leading only during the morning exercises. Father talked of the term used for failing in College being "Bull" here it is for a dead failure "Flunk" for a poor recitation "Fizzle" for a good recitation "A Rush". Mr. Bridgman was taken from his house last term tied in a room in Commons, and pelted with rotten eggs by the boys.

I study from seven in the morning to a quarter before nine when we attend prayers and from nine until quarter of eleven when I recite until twelve and from half past one in the afternoon until a quarter past three when I recite until half past four, then prayers, and study from seven until nine in the evening.

Your affec. Son, E.

The following spring, we may imagine, found him thoroughly acclimated and conversant with the technique of student life, as the following will bear witness to:

Andover, March 5th, '67.

*Dear Father:*

When you were here I did not know that there were vacancies in the "Hart house," if I had I should have asked you to let me go there.

Last evening a gentleman called on me, stating there were to be two vacancies there, and asked me how I should like to go there. I told him I should like to very much, and asked him how much the rooms would come at, he said probably at 7.50 at the greatest not more than eight dollars a week.

I would like to have you let me go there if board does not come at more than 7.50. Mr. Hart is a retired clergyman, his wife a very nice lady, very intimate with Mrs. Mosman: the boys there are some of the best in school: the sabbath is regarded there strictly and some of the boys are religious, which none in this house are (etc.)

In haste,

Your affectionate Son,

EVERETT.

Perhaps some inkling of future professional leanings may be gathered from this extract penned in December, 1867.

I would like to ask father a medical question. What are the best remedies for Pin Worms? I am not troubled with that affliction myself, but there is someone I know of who is; he has tried injections of Aloes but they are too powerful: he don't know of my asking you for any remedy, indeed he didn't know you were a physician, but I would like to know something that may be used, if you please.

The following spring Everett's mother died, but during his college years at Harvard there was added to the family a stepmother who became a mother indeed.

Cambridge, Oct. 2, 1870.

*Dear Father:*

I have been having quite a jolly time this term so far mixing with the fellows in the Yard and "hazing" Freshmen. I am at present rather anxious about my term bill for it *must* be paid on Wednesday the last day of grace. Also I want some coal but can't get it as I shall have to pay cash down.

In a day or two I shall write—this is as you see only a begging letter.

Yr. Son J. E. G.

At college many lasting friendships were formed, although he must have been well occupied, helping to meet expenses by reporting for the *Boston Globe*. For a year he was librarian of the Hasty Pudding Club, receiving thereby a free room in Holworthy Hall which he shared with the late Justice John F. Brown; the preceding year when Brown was librarian they had also roomed together thereby both receiving two years of free room rent.

Extra-curricular student activities were typical of the gay seventies and not dissimilar to those of later days, for stories have been told of painted cows being hoisted by the dark of the moon onto unpopular roofs and like evidences of sporting tendencies among the undergraduates. Vacations were spent at Gloucester, at Hampton, and once on the Grand Banks in a fishing schooner.

College graduation came in 1873, and that fall found him enrolled at the old Harvard Medical School on North Grove St. and doubtless attending Professor Oliver Wendell Holmes's lectures on Anatomy—after lunch—for Dr. Holmes was the only lecturer who could keep a class awake at that hour. During these years he roomed on the north side of Beacon Hill with Octavius Thorndike Howe and the late Dr. Oliver Hurd Everett, of Worcester.

The class of 1877 was a large one for those days at the Medical School with sixty-two men graduating, including John W. Farlow, Charles M. Green, Edward O. Otis and Maurice H. Richardson. Only thirty-six had graduated in 1876, among them being Arthur Tracy Cabot. Forty-seven graduated in 1878.

As was the custom until recently, internships were often served before graduation, and the year 1876 was spent as a house pupil on the West Surgical service at the Massachusetts General Hospital. A temporary service was then taken at the Chelsea Marine Hospital, and in 1877 Doctor Garland served in the McLean Street Lying-In Hospital. Opportunity then offering, he sailed for Europe in October with Dr. Oliver H. Everett for two years of foreign study.

Vienna was the Mecca for medical students, and to Vienna they went, spending the greater part of the first year there, with the exception

of a trip to Italy and some time spent under Virchow in Berlin. August, 1878, found the young men in Prague, from which city they started on a sight-seeing tour of Switzerland, an account of which is still preserved in a number of long descriptive letters. In September they were back in Vienna for the fall and early winter, leaving in January, 1879, for Paris via Strasbourg and Munich. They parted company in May, Doctor Garland going to London to follow the wards with Lister. The following month he went to Edinburgh, then to Ireland and from there home.

A large part of the correspondence of this eager young student has been preserved and gives more graphically than can another pen the atmosphere of student days abroad a half century ago.

Vienna, Nov. 29, 1877.

Dear Father:

Your letter came to hand day before yesterday. We all here are in a tolerably good state of health though we have a few colds which we continually pass around amongst each other so that one or two of us are always afflicted. The weather is worse and worse—horrible. The pavement of the street is covered with slime and a greasy slime at that and there is a continuous drizzle most of the time. Once in a while we get a peek at a small fragment of blue sky without seeing the sun at all. This we suppose to be Thanksgiving day with you and I hope you may have eaten enough to supply my vacancy. We shall have our supper tonight, or rather dinner, at  $\frac{1}{2}$ . We have invited Zucker-Kandl the anatomist and he will dine with us \*\*\*.

This was soon after reaching Vienna. Almost a year later he returned.

Vienna, Sept. 19, 1878.

Dear Father and Mother:

Once more back again in the city of my delight, the most pleasant city I have seen and to which I gladly return, gay, careless, happy, Jewish, chattering, lying etc. etc. Wien, where the discords of life are more numerous than the sources from which she draws her population, and yet all is a sort of harmony, lots of jingle and bows and smirks which mean nothing yet are pleasant to see, yet everything skin deep and superficial, jollity rising to the top like scum in a bottle etc. etc. I arrived here yesterday, my trunk got here today and I drew £10 in Munich day before yesterday having hurried through Switzerland somewhat more rapidly than I expected as expenses there are very high and I was exceeding what I had allowed. It will take something to start me here and then I can sail cheaply for a while I hope.

I will write at greater length Sunday.

Love to all.

Your affectionate son,

J. E. GARLAND.

Vienna, Oct. 28, 1878.

My Dear Father and Mother:

Gradually the weeks roll around and I find myself with but a few weeks more left for Vienna, and more, much more to do than I well know how to accomplish. From eight to ten in the morning I have Bamberger in clinical medicine. I thought my bread and butter for the first few years at least would depend on the general practice I may be fortunate enough to acquire and consequently took this course and I must say a

better I never saw or had. Bamberger is perhaps fifty years old, rather undersized, wears side-whiskers and moustache, has long hair, a wrinkled face etc. He talks in an undertone, is very cool and his questions and talk are always pointed. I have a very nice seat in his clinic and so can hear everything. A patient is brought in before the class, the patient is questioned first as to his previous history, habits, etc., then as to his present trouble; duration, subjective symptoms, etc., then, in every case a thorough physical examination is gone through with heart, lungs, liver, spleen and abdomen carefully examined, the urine tested and then the symptoms summed up, the diagnosis made and then the etiology, symptoms, prognosis, treatment, anatomical changes etc. all quite fully entered into; yes, even more than fully—I may say extraordinarily dwelt upon. We have had Diabetes, Leucocytæmia, Pneumonia, Carcinoma of the stomach, Perforating ulcer, Phthisis, Compression of the Cord, Acute Bright's, Intermittent Fever, Pleurisy, one heart case (besides several accidental murmurs in cases where only anæmia was present) besides many others. The professor talks like a book, his remarks, although faintly spoken yet flowing in a continuous stream and when he has finished talking about a case one can't imagine much more to ask questions about. He double discounts anybody I have seen at home.

At ten I have Kaposi, Hebra's son-in-law, on Skin, a most interesting talker and a remarkable man, very brilliant and thorough and perfectly conversant with his subject, a man in whose opinion I should have as much confidence as in that of his father-in-law. From eleven to twelve I have a course in pathology, merely to keep what I learned in Berlin from getting rusty; from one to two I have another course in skin diseases and from two to three a practical course in Auscultation; from four to five I have a course in Syphilis. Then I read a little, use the microscope somewhat, dissect occasionally, go to the theatre or opera once in a while, and sleep and eat.

As I said before, I think more and more of making Skin and Syphilis specialties if they can be practiced sufficiently to make a living off of. This branch is certainly most open and with fewer competitors in America; whether there are cases enough to justify the attempt or not I cannot say.

Yr. affec. Son,  
J. E. GARLAND.

November 5, 1878.

Dear Father and Mother:

I feel now as though I were learning more and more daily: I look on all medical subjects more or less pathologically, trying to deduce from what I see the process that is going on underneath, and this I find an immense help; one almost feels the daily increase in knowledge. Something is being continually treasured up and it is this thoughtful, reflective way of looking at things that I consider one of the greatest advantages I have reaped. Mistakes I often make but not so blindly and unreasonably as I used to do. In Physical Diagnosis I have made good proficiency, but after all I shall have to go around with Father after I get home and learn treatment. Skin diseases I can treat, generally speaking, also surgical and the like, but for everyday diseases I think I would rather rely on him than on anyone else; the skin is rather a fancy subject you know.

Yr. affec. Son  
J. E. GARLAND.

News from the student son abroad was in those days, to the dweller in a small fishing city, somewhat of an event. Foreign travellers were rare, general information was more scanty, and intellectual horizons, though true, were more

limited. Of equal interest to us, however, was the news which went abroad from the family at home—their daily life, their thoughts and their viewpoints.

Gloucester, Nov. 24, 1878.

Dear Son:

This is Thanksgiving week and we can't help thinking the more of you and indulging the feeling of regret that you cannot be here to join us around the family board. To have two such annual festivals pass by, and to look upon two vacant seats at the table is enough to make the heart ache, and sadly to mar the enjoyment of the occasion. \*\*\*\*

I have been desired to contribute an original paper for the next meeting of the Massachusetts Medical Society to be read then—I can hardly see how I can attempt it, my practice presses me so. The fact is that I can hardly get a chance to sit down and write a letter without constant interruptions before ten o'clock at night, and then I am not sure of quiet. I do not want to make a fool of myself, for I should not want to present anything that was not thoroughly elaborated and that did not contain some original thoughts that might be interesting if not instructive. Were you at home, I should attempt it, for I think I could get up something quite as good as I have known to be offered sometimes. What think you about it? Haven't you some good subject in mind that could be well elaborated for such an occasion?

Am glad you appreciate the opportunity you have, and that you really feel that you have learned something of value. Shall be very glad to take you around to see my patients. Good-bye.

Your affect. father

JOS. GARLAND.

Sunday P. M., Gloucester, May 12.

My Dear Son:

We received a very interesting letter from you, a week ago yesterday, dated at Munich, of which I made mention last Sunday in my letter to you. So now we are without any more recent news from you, and must fill this sheet wholly from this side of the Atlantic \*\*\*\*\* (on account of) the deadlock in business, a suffering time has come to many a poor family whose frugality should have been better exercised when times were better. In fact, these are "hard times" in old Gloucester. "The single horse shay" education—the only industry of the place is at low tide. Such a scene has never been witnessed since 1837. No market for fish, and no large quantities taken—vessels running fast in debt, and both owners and crews "short". One good lesson may come of it—economy in the structure and outfit, as well as in the running of the vessels, and frugality and economy in the homes of both owners and fishermen. A new departure must be made or the business is forever ruined.

So good bye,

Your affect. father

JOS. GARLAND.

The young physician, considerably ripened by his two years in the European clinics, returned to Gloucester in the summer of 1879 and soon after made a trip to Michigan in search of a place to settle. It happened, however, that in the coming fall his father, at the time president of the Essex South District Medical Society, was elected the fifth mayor of Gloucester, and to tide over this period the son consented to remain at home for the time and serve as *locum*

*tenens*. Deep roots were struck and the temporary tenancy lasted for the remainder of his life. Longing glances, we know, were turned backward to the parting of the ways, but for him there was, thereafter, no specialization in a large city; a busy general practice became his lot and for a quarter of a century he was the foremost practitioner and certainly one of the foremost citizens of the community that had taken him for its own.

Practice was immediately successful, particularly so since this classmate of Maurice Richardson, trained in the same surgical atmosphere, was the first surgeon of the North Shore to open the human abdomen. Major surgery was at first an emergency adjunct to routine practice and was not allowed to interfere with it—the early operations were generally performed on Sundays, in improvised operating rooms, more often than not on kitchen tables, with a drug clerk friend as the anaesthetist. Soon, however, the trusted physician became known also as the skilful surgeon, and during the succeeding years of his life he performed the more important surgery of the vicinity.

Life now, and from now on, was one of seven work days in the week, travelling alternately behind the sorrel and the bay mares, covering in the long drives the whole region from Rockport to Essex and the "back parish," whirling over the roads in the light buggy in the summer time and ploughing through the unbroken drifts in the winter; rising at night to be rowed across the harbor and put on some vessel with sickness on board; meeting in consultation most of his colleagues in the county; returning to see twenty or thirty patients in a crowded office hour; hurrying north on a train that was flagged at a small White Mountain station, where he operated on a favorite niece for appendicitis—these were his days and nights for twenty-eight years, save for the few days snatched away each year to spend in the north woods of Maine.

In 1884, at the suggestion of Freeman Putney, then the beloved superintendent of schools, Doctor Garland, Mr. John L. Stanley and Mr. H. C. L. Haskell were nominated for the School Board and the choices were confirmed by the voters. Seven times they were re-elected to the Board, each serving until his death, in the case of Doctor Garland for twenty-three years, during most of which time he was Chairman of the High School Committee. During these years he was always on the alert to discover cases of pressing need on the part of students, and many a student had occasion to thank his thoughtfulness and generosity for the privilege of continuing school. In the capacity of a private citizen he started the fund towards establishing annual prizes for speaking and composition in the High School.

Besides being president of the Essex South District Medical Society he was a trustee of the Gilbert Home for the Aged, a charter mem-

ber and for years president of the Associated Charities, and from the time of its opening until his death, chairman of the medical board of the Addison Gilbert Hospital.

Twenty-eight years of his life were spent in preparing to be a physician, and twenty-eight were spent in the practice of his profession. His life was one of service and of unremitting la-

bors, uncrowned by the halo of a retrospective old age, for he died in his fifty-seventh year on December 16, 1907, revered by his community, but worn out by a life of ceaseless activity and self sacrifice.

"We live in deeds, not years; in thought, not breaths.  
In feelings, not in figures on a dial.  
We should count time by heart-throbs. He most lives  
Who thinks most, feels the noblest, acts the best."

## MEDICAL EDUCATION: THE RETROSPECT OF A RECENT GRADUATE

BY KENNETH ELLMAKER APPEL, M.D.

UNDER the picture of Osler's Chief Medical Heroes hanging in the University of Pennsylvania Hospital, one reads the words *Litterae, Scientia, Praxis*—Science and Practice representing the two great fields of medical endeavor and Letters the indispensable cultural background of both. Medical education, we think, must give due consideration to all three. With these in mind let us consider how satisfactorily the present-day student is being prepared. Many articles on this subject have appeared in the past several years, but they have been written by older men and it seemed worth while to formulate something from the younger point of view.

It is recognized, of course, that training for science and practice is being given more adequately today than ever. But, the cost and the academic demands of our better schools are such that many people of modest means and good average intelligence are debarred from the profession. This is important if we consider the alleged shortage of physicians. Some of those who desire to serve their lives as practitioners of medicine turn, no doubt, sincerely to osteopathy and the other schools of healing. In view of this situation we believe it would be worth while for our medical schools to consider certain changes in methods of teaching and a rearrangement of school and hospital training.

### I. METHODS OF TEACHING

*Emphasis on Fundamentals*—Pedagogy teaches that learning begins with the acquisition of fundamentals and proceeds from the simple to the complex. In many of our courses in medical school we felt the reverse method was being applied. Both textbooks and lectures were too detailed, and frequently the latter were chiefly a chronicle of experimental data, the value of which was as yet unknown. The consequence was that one felt swamped with a mass of bewildering details. Would it not be more reasonable for a professor to lecture on essentials, present the situation as he sees it with his experience (if the subject is controversial) and then let the instructors add their details, assign reports on the current literature, or guide the student in some original problem?

After all, the student working with a great master receives from him an inspiration and a method of work, rather than a vast fund of detailed information. This seems to have been the spirit of Dr. George de Schweinitz's association with the great Leidy and the spirit of Sir William Osler's teaching.

Examples of the difficulties aforementioned will readily occur to anyone who has recently been through a medical school. What could be more uninspiring and unpedagogic really, than to place in a student's hands the opening day of school the massive tome of Gray, Cunningham or Piersol? Is it not like giving Curtin's History of Greece or Thiers' History of France as an introductory textbook in history? If the teachers would outline the essentials and recommend a simplified but adequate textbook, such as the excellent little *Regional Anatomy* by Cameron, the student would have the groundwork on which to build. We believe there are many fine practitioners and perhaps surgeons who never did very well in memorizing the infinite details of our great anatomies.

The study of chemistry, it seems to us, is also open to criticism. One learns the formulae of the amino-acids, uric acid, and the pyrimidine compounds; one goes through the colorimetric and salting-out reactions of the proteins; one does some quantitative analysis on the urine; but in some of the most important procedures used in hospital practice one receives little or no training. We wager that there are few students who can measure with any degree of confidence the  $\text{CO}_2$  in the blood plasma, the blood sugar, or blood urea, and we would extend this wager to include many hospital graduates. This is an example of what we mean by emphasis on essentials. Personally we should suggest that the anatomy course be shortened to bare essentials and the chemistry course be altered; for the fields of anatomy and histological pathology have been well worked, whereas that of colloid and physical chemistry as applied to medicine is virgin.

*Need for Genuine Teachers*—Our second point is that we have need for tutors or teachers *per se* in our medical schools. They should be men who love to make things clear. "get things

across", so that the facts will remain indelibly written. At present the quality of teaching suffers because advancement on our medical faculties comes exclusively through research. A nationally known clinician and investigator remarked to us that because of this attitude he felt it was hardly worth while to prepare his teaching carefully. At school we felt that there were too many lectures by people whose last forte was public speaking and exposition. It was splendid and inspiring to hear a lecture by one who was creating anew the field in which he was lecturing, but when he was expounding a subject in which he was not interested the lectures were frequently very poor. Of course, it is desirable and necessary to have creators in the field of research on the medical faculties. They contribute to the vitality and esprit of an institution but why should these men be tied down with the responsibilities of teaching? There should be room also for teachers who love to expound and inspire, and who have a faculty for it. We have deans and presidents in institutions who are known for their executive ability rather than for their research. Why have we not room for the pure teacher who will act as the midwife to knowledge in Socrates' simile?

*Lectures Versus the Bedside*—Medical tradition has it that Osler introduced bedside instruction into American medical education. Let us have more of it; let the master teach the art by practice. To see the master mind at work in a concrete situation (the knowing approach, the skillful observations, the almost intuitive recognition of essentials, the studied conclusions)—all this is of inestimable value as compared with lectures.

Can anyone recall the classification of râles he received in his lectures on physical diagnosis? How complicated they were! However, what puzzles the interne early in his career is not the classification of râles but the ability to determine their presence. One hour by the bedside with fifteen minutes discussion by an efficient docent is worth three hours of the ordinary lecture. Very much the same applies to lectures on medicine—especially when therapeutic nihilism is approximated.

#### II. A SUGGESTED COMBINATION OF SCHOOL AND HOSPITAL TRAINING

In the medical school we attended, all lectures were finished at the end of the third year and dispensary work in the minor subjects was also completed. If, with a generous allowance for lectures, one school can finish its formal instruction in three years, would it not be possible to spend the fourth year in the hospital as an interne on a rotating service of medicine, surgery, obstetrics, pediatrics, and laboratory? After having finished this year in the hospital, let the interne return to the medical school for his

final examination before receiving a degree. A fifth year could be devoted to a specialty—whether medicine, surgery, or what not.

The advantages of this plan are several. Perhaps most important would be the saving of the expense of one year's training. It would insure emphasis on essentials. Every practitioner and specialist would have a general hospital training. In addition it would mean that many general practitioners would have spent an intensive year in one field and could be called upon by fellow doctors for their special knowledge and advice. The smaller community would possess a group of men with uncommon knowledge approaching the specialist's rank but remaining in general practice.

This suggested rearrangement of the scheme of education would have the advantage of requiring more senior residents to guide the internes in their routine work. It would create more openings for young men whose goal is clinical research but who now have to leave the hospitals and do general practice to eke out a living.

Finally, this arrangement would involve a rapprochement between our centers of medical education and hospitals, which would be salutary. If the latter were not up to standard the schools could refuse to grant a degree. In this way the student who could not enter a teaching hospital would be assured of a better service than he can now generally obtain.

Every hospital, we believe, should be rated by an impartial board, and certain data published for the information of medical schools and prospective internes. Dr. Christian has suggested that one of the criteria for judging a hospital is the percentage of autopsies. We should add the following: the care with which records are kept; the number of publications by the staff for the year; the number and nature of staff meetings with the resident staff; library facilities of the hospital; the number of hours available to the interne for reading and exercise; and the organization of the hospital, i. e., whether the ruling authorities in the hospital policy be the staff or a board of laymen; and finally the adequacy of equipment.

#### III. NEGLECT OF THE HISTORICAL AND CULTURAL SIDE OF MEDICINE—LETTERS, IN OSLER'S TERMINOLOGY

What about the great treasure-house of medical tradition and history? Except in a particular branch here and there, and in a desultory fashion, it is left almost untouched. Our medical schools offer few, if any, courses in the history of medicine. Where, let us ask, if not in the temples of Aesculapius themselves should we be initiated into the great tradition that has been carried along by Hippocrates, Galen, Pasteur, and Osler?

How many of us knew when we graduated

from medical school who said, "I dressed him, and God healed him"? Yet would it not be more valuable for the student to read how Paré "found the way to learn the art of surgery", than to read some of the current articles which are of more or less ephemeral value? How many of us have read about the plague of Athens, and of how Hippocrates led medicine from the temples and the priests and superstition and despair? And yet this great world of history and romance is all but unseen by us. It is true that the better student will find these things for himself, but ought not all students be brought to these sacred springs of wisdom early in their careers?

Would not the possession of this great cultural tradition help the general practitioner even in the simplest case? He would often meet difficulties to be solved with the same spirit the great masters applied. Many of their problems must have seemed unimportant at the start. And the discouragement that comes would be lightened in the knowledge of the discouragements and sufferings of the great, which led even Metchnikoff, for example, to attempt suicide. And finally, the inspiration for better living, better practice of the trade, that one gets from the oath of Hippocrates to that epic of modern medicine, Cushing's Life of Osler, all this cannot but enoble every worker in the field of medicine. It would perhaps bind more strongly the honest heart to the knowing head, and when we are in the abysses of life in sickness and in death, is not the former a very necessary help?

#### IV. CONCLUSIONS

We have indicated certain ways in which it seems to us that training for Science and Practice could be made more efficient and less costly. Medical schools, we believe, should put greater emphasis on fundamentals and eliminate details until the student is oriented. It would help if a certain number of faculty members were appointed primarily for their teaching ability. The number of formal lectures could be reduced and the teaching vitalized by more frequent contact with clinical material. The substitution of a year's rotating interneship for the fourth year of school would have great advantages, in our opinion. The adoption of these suggestions might make it possible to shorten the period of preparation.

There are unquestionably a considerable number of men whose sincere desire is to help their fellowmen by practicing medicine, who are turned away by the rigor and expense of the present-day training. And not an inconsiderable number of these find their way in honorable conviction to the schools of the sophists—osteopathy, chiropraxis, and the like. Medicine itself must be held responsible in part for this condition. Practitioners need not be superior intellectual beings and the qualifications for

practice ought not to demand it. What is to be desired in the majority of cases, it seems to us, is that the physician have a *good average knowledge* of the science combined with that high sense of his calling, which can be so easily quickened by the study of the great cultural heritage of medicine. And on this too little emphasis is placed in medical education. Letters, morals in the broad sense, and culture are conspicuously neglected, and in so far as *Litterae, Scientia, and Praxis* are slighted, the ideals of modern medicine fall short of realization.

#### THE WORLD'S CHILDREN

##### *The American Legion Believes in Home Care*

Of the 523 children in care of the child-welfare division of the American Legion at the end of October, 391 were in the mothers' homes, 39 with relatives, 45 in foster homes, and only 48 in legion billets, local institutions, or hospitals. During October the per capita cost of providing for children in their own homes was \$10.75; in local institutions, \$24.48; and in legion billets, \$70.

##### *"Mothers' Aid" Granted by Institutions*

Four institutions conducted under church auspices in North and South Carolina, finding that some children for whom institutional care was requested could be cared for in their own homes if the mothers had the necessary means to support them, are now giving "mothers' aid" in such cases. South Carolina is one of the six States which at present has no law granting aid to children in their own homes.

##### *Arizona's Leaflets for Spanish-speaking Mothers*

The division of child hygiene of the Arizona State Department of Health is publishing in Spanish, for the benefit of Spanish-speaking mothers, leaflets and charts on prenatal and infant care, birth registration, and the needs of growing children, and on venereal disease and tuberculosis. They are based on State board of health publications and those of the United States Children's Bureau.

##### *Scholarships on Child Development*

A limited number of national scholarships in child development for 1928-29 have been announced by the National Research Council, under a grant from the Laura Spelman Rockefeller Memorial. They are open to college graduates of the United States and Canada with at least a year of graduate work and training in sciences basic to the study of child development. They carry a stipend of \$1,000 for nine months' work, with an option of an additional \$200 for a summer session of six weeks. Application should be made by January 21, 1928, to L. R. Marston, executive secretary, Committee on Child Development, National Research Council, Washington, D. C.

##### *Cooperation in Work for Boys and Girls, New York City*

Twenty-five of the 88 social agencies caring for New York City's dependent children have organized as a section of the Welfare Council of New York, in order to coordinate their activities and eliminate needless duplication of work. All existing agencies will be invited to send delegates to the council.

The Welfare Council is now making a study of boys' work activities in Brooklyn, preliminary to a similar study for New York City as a whole. When completed it is intended that this study shall present an accurate picture of facilities for social work among New York's half-million boys.—*United States Department of Labor, Children's Bureau, Washington.*

## NEW HAMPSHIRE MEDICAL SOCIETY\*

## PRESIDENT'S ADDRESS†

BY DAVID W. PARKER, M.D., F.A.C.S.

WHEN one contemplates the wonderful advancement in Medical Science in the last two decades it seems like a fairy dream. Perplexing problems of every phase of disease and treatment which had previously been a closed book have been solved by our research workers. In Surgery, regions, where a generation ago angels would have feared to tread, are now explored with comparative safety. We have hospitals wonderfully constructed and equipped in nearly every city, great and small, in this broad land; laboratories with trained technicians within the reach of all; literature on every subject so voluminous that it is almost impossible for one to be familiar with it even in abstracts. Without question more lives are being saved and more people restored to health today than ever before.

It would truly seem that this is the Golden Age of Medicine, and that we, as a profession, might justly be hailed as Conquering Heroes. With this wonderful equipment for service and record of achievement are we reaping a commensurate reward? Do we retain the reverence or even the confidence which was accorded the Doctor of the Old School, a reverence so beautifully portrayed by Ian Maclaren?

Is the public drifting away from us and following false prophets? Quackery, to be sure, is not peculiar to our generation. It has prevailed and thrived from the time of Appollonius of Tyana down to the days of Dowieism and Eddyism, yet I think it is fair to state that Charlatanism has never flourished as it does today in this age of universal education and supposedly high intellectual idealism. Is it possible that we are becoming cold scientists and are losing sight of the human element and the individual himself? Further, through carelessness or neglect are we sometimes rendering opinions and giving immature advice not based on available data and obtainable knowledge, perhaps subjecting people to unnecessary or ill-advised operative procedures which are sure later to be a source of disappointment to the individual, and to reflect discredit upon ourselves?

Are we failing to adapt ourselves to the demands of an increasingly critical body politic for more thoroughness in examinations and the utilization of existing exact methods in diagnosis? We must admit that these demands are just and right, and I am sure that there is no member of this N. H. Medical Society who does not desire and endeavor to render this type of service. The field of modern medicine,

however, is too broad and the problems, both economic and scientific, have become too complex for any of us to cope with successfully as individuals. Regardless of what our personal feelings may be, if we, as a profession, wish to maintain our prestige with the public and merit its respect it is necessary that we lay aside our personal and sectional differences, stand together as a unit, and through coöperation work for a higher standard of service to our communities.

It has been found and is recognized in lines of business and economics that organization and close coöperation is an essential to success. Why not apply these principles in our profession? Our medical society, to be sure, is beautifully organized on paper, but do we as members feel a personal responsibility to give it more than negative support? Are we taking advantage of the opportunity for social and professional intercourse offered by attendance at these annual meetings? Are we giving our counsel and active support to the problems of Ethical medicine and Public Health, for which this organization should be and is the logical sponsor? Until we are willing to accept these responsibilities our society cannot rise to its greatest potential power.

Our mistakes always outlive our successes, and are better advertised, especially by those who would profit by them. It is possible and probable that our errors of omission and commission may be, and probably are, a small factor in the trend toward quackery, yet the public mind seems to be particularly responsive to the most fantastic and illogical promises, if they are only put in alluring form. However, if we will but look back through the history of medicine and civilization this mental attitude becomes understandable.

Primitive medicine was intimately associated with mysticism and the supernatural, and interlocked with folk lore. The history of civilization shows that certain beliefs and superstitions based on this folk lore have become ingrained in humanity through the ages, and persist even to the present time. To be sure, we no longer believe winds, clouds, storms and earthquakes to be the outward and visible signs of malevolent Gods and Demons, nor do we offer up sacrifices to these evil spirits, but we still carry horse-chestnuts in our pockets for rheumatism, wear tansy and saffron bags around our necks, and adhere to the superstition that handling a toad will cause warts, which may be cured by rubbing with a stolen bean which is afterward thrown down a well.

\*For List of Officers see Page iii, Advertising Section.

†Read before the Annual Meeting at New Castle June 22, 1927.

As an illustration that we retain the folk medicine of our ancestors allow me to quote what Herodotus says about the Babylonians. "They bring out their sick to the market place, for they have no physicians; then those who pass by the sick person confer with him about the disease, to discover whether they themselves have been afflicted with the same disease as the sick person, or have seen others so afflicted; thus the passersby confer with him, and advise him to have recourse to the same treatment as that by which they escaped a similar disease, or as they have known to cure others." How often do we see modern science discarded for this same hotel piazza method of diagnosis and treatment. 'Tis true we no longer countenance the surgical methods of Aëtius of Amida who lived in the 6th Century. To remove a foreign body from the throat he was wont to cry out in a loud voice:—"As Jesus Christ drew Lazarus from the grave, and Jonah out of the Whale, thus Blaesus, the martyr and servant of God, commands, 'Bone come up or go down.'" This sounds ludicrous, but it is certainly as logical and efficacious as the methods of the satellites of Mrs. Eddy or Coué.

The claims of the Mechano-therapists, particularly the chiropractors, also, ardently less extravagant than the belief of the early Babylonians as handed down in the Talmud. They believed that there was a bone which was supposed to be somewhere between the base of the skull and the coccyx, and which they designated as Luz. This bone was regarded as the indestructible nucleus from which the body was to be raised from the dead at the resurrection. Mr. Palmer claims little short of the resurrection.

The effect of these therapeutic superstitions and the actual cure of disease though the influence of the mind on the body, however, a matter that can be approached 'no derisive spirit. We may call it Emotional, but it is real. Oliver Wendell Holmes says: "There is nothing men will not do, there is nothing they have not done to recover their health and save their lives; they have submitted, half drowned in water, and half choked with gases, to be buried up to their chins in salt, to be seared with hot irons like galley slaves, to be crimped with knives like codfish, to allow all sorts of abominations, and to pay all this as if to be singed and scalded were a tiny privilege; as if blisters were a blessing & leeches a luxury. What more can be asked to prove their sincerity?"

We may say that quackery never did disease, but there is abundant evidence, I most of us have personal knowledge of this, that many people have gotten well with no other treatment. Without doubt Nature cures disease while the treatment amuses the patient, but to the untrained mind accidentals are likely to be confused with essentials. "To fol-

lione," says Albutt, "doubt is unknown; it brings the peace of security."

Only recently has our profession begun to discard the mantle of secrecy and to spread abroad the truth in all matters concerning the public health. This program is already beginning to bear fruit, and I look forward with hope to the time when, through a universal application of this powerful agency of publicity, a more perfect understanding and confidence will exist between our profession and the laity.

Are we, as a profession, in New Hampshire sitting back complacently and letting the world go by? We must all admit that in the last decade revolutionary changes have taken place in methods of merchandising. The art of presenting the merits of different commodities to the public in a perfectly honest and yet very attractive way has developed into a highly specialized science. The success of this Art is demonstrated by the ever-increasing vast sums that are being directly and indirectly devoted to this purpose.

The people more than ever before are susceptible to mental suggestion and eagerly grasp that which is put before them attractively and logically, either in newspapers, in form of news or advertisements, broadcasted over the radio, or through other avenues of approach.

Never has the medical profession been on a firmer scientific basis to render intelligent service than at the present time. We have a commodity to offer which is infinitely more valuable than all the material things which are so attractively advertised as indispensable to the American home.—*Health*.

It is heresy and a defamation of our professional ideals to suggest that it may be time to break down the wall of silence that has so long surrounded us, and to present to the people of our State through publicity the facts concerning public health, preventive medicine, the danger signals of disease and the importance of early rational and intelligent treatment. I, personally, cannot see how a course of this sort could be termed exploitation or be beneath the dignity of our profession.

I also believe that publicity along these lines would do much to counteract the lurid advertisements of Quacks and pave the way for successful Legislation.

The basis of the Armamentarium of the quack has always been mental suggestion or Psychotherapy; a science long recognized in medicine, but little understood and seldom applied by too many of us.

Charcot recognized the power of mind over the body when he said, "The best inspirer of hope is the best Physician." This is as true today as then. We are neglecting a golden opportunity by not combining to a greater extent Psycho-therapy and the doctrine of hope, with modern science, instead of leaving it to the

charlatan to combine it with chicanery and fraud.

Many things of importance to our society have transpired during the last year. Experiments have been tried with apparent success which if continued hold great promise for the future. Progress has been made on the solution of problems which are of fundamental importance to the whole profession in N. H. A new organization has had its birth which, even in its infancy, gives evidence of becoming a very powerful agent for the betterment of social and professional conditions in our society and State.

Our charter, constitution, and bylaws have been carefully studied and amended so that they are consistent with the present needs of the society and still retain their value as historic documents. This work has been accomplished at the expense of a vast amount of time and thought on the part of the committee. For its painstaking and successful efforts this committee deserves great credit, and merits the unanimous approval of this body.

At a meeting of the House of Delegates last year it was voted on the motion of Dr. Clow of Wolfeboro, that a committee on medical education and the distribution of physicians in N. H. be appointed by the President to look into this matter and bring in recommendations. As read this seems like a small and routine procedure. As a matter of fact, however, it is a subject of the utmost importance and is vital to the interests of each one of us and to all of the people of our State, especially those who live in our rural communities. It has been pointed out by Dr. Fred Lord, and it is a matter of common knowledge to many of you, that many of our country towns and rural districts are without medical practitioners, and that the average age of those physicians who are practicing in the country is on the shady side of 50. There are no young men coming in to take their places. The solution of this problem is very complex and no small part of it depends on a revision of our present theories of medical education. I hold no brief for the fly-by-night medical mill with its grist of half-educated graduates, but I do believe that we must get away from the idea of turning out scientific specialists exclusively from highly developed and centralized schools, and evolve some plan for educating young men at a reasonable expense, well grounded in the fundamentals of the science of medicine, and trained clinically under men who know the art as well as the science of treating the sick. That young men can be satisfactorily educated and trained at the smaller schools as they were at Bowdoin, and are at the University of Vermont Medical School, and our own Dartmouth has been successfully demonstrated, and one has only to look at the products of these schools to see the quality of the work turned out.

In a report of the Committee on Education of the Massachusetts Medical Society, presented by

Dr. Painter of Boston, at a meeting of the Executive Council, the advisability of the present day highly intensive training seemed to be questioned. This committee also seemed to see a direct relationship between it and the unequal distribution of doctors, which seems to be almost as alarming in Massachusetts as in New Hampshire. This committee which has been appointed in N. H. is composed of men who are thoroughly aroused to the seriousness of the situation, and have given their time and best thought to it. They merit your hearty support and I urge you to give their recommendations your careful consideration.

Last February, on the invitation of our Secretary, a conference of the secretaries of all of the County Societies was held at Concord. The purpose of this conference was to discuss the problems of the several societies, and to evolve some plan or plan to increase the interest in these organizations, and to promote social and professional intercourse between the members.

There was much enthusiasm on the part of those present over the result of this conference and it was voted to make this meeting a permanent annual affair. I believe an annual conference of this kind is a distinct step toward the closer amalgamation of our county units, and should be encouraged in every way.

During this meeting it was suggested that the custom be instituted at the county meetings of an exchange of papers, based on personal work, by men from the other counties of the State. It was felt that this custom would bring us into closer touch with representative men throughout the State, and could increase the respect for the work that is being done by the profession of New Hampshire. This experiment was tried at the last meeting in Hillsborough County with results which were extremely gratifying to all those present! I am sure the experiment will now become custom in this county, and hope that it will spread to all of the units of our State.

During the past year an advisory body has been formed New England composed of representatives from several States. It has been named the New England Medical Council. Its aims and purposes are the discussion and possible solution of the medical problems common to these States. It is analogous to the New England Council which has done such wonderful work in the field of business and economics.

This body has received the enthusiastic approval of executive bodies of all of the State Societies, and with their continued support promises to be a most valuable means of making the practice of medicine in New England more stable and unified than ever before.

At the first meeting of this Council the matter of practice suits and medical defense was fully discussed and recommendations made based on the experience of the several States. These recommendations have been submitted to

our House of Delegates for consideration and action. These recommendations are based on actual experience and not on theory. If they are approved and receive the *active coöperation* of every member of this society, I believe the day is not many years distant when medical litigation will disappear from our courts, as it has already nearly disappeared from the courts of Maine and Connecticut. Then, and only then, will we be able to obtain the reasonable insurance rates which are given members of medical societies of those States.

During the last year, the State unit of the Woman's Auxiliary to the A. M. A. has been organized in all of the counties, and is now in a position to expand and fulfill its aims. Five years ago this national body was founded with the purpose of furthering all matters pertaining to public health, promoting closer social relations between physicians, and aiding in securing better medical legislation. It was not started as an independent organization, but, as the name implies, is auxiliary to and coöperative with the parent organization—the A. M. A.

Since its birth five years ago twenty-seven States have been organized with a membership mounting into the tens of thousands. These women have already done a wonderful work, especially in the West and South, and their organization bids fair to become one of the dominating factors in the medical life of this country. To the medical profession of New England, and especially of New Hampshire, the Woman's Auxiliary offers a very logical and strong point of contact between the profession and the people, and may be made a powerful factor in moulding public opinion in all matters pertaining to ethical medicine. This newly organized New Hampshire unit deserves our whole-hearted support and coöperation.

There is one more matter which I would like to bring forward for your consideration. I think you will agree with me that our influence in guiding the course of events politically is very small. Is it because of too much individualism and too little coöperation? Have not the members of the profession of New Hampshire, as a body, always been too absorbed in their own personal affairs to be actively interested in the broader problems of our State? Until we can get together and present a solid front can we hope to make our influence felt and our opinions respected?

A bill has been drafted by Dr. Woodward of the Legal Department of the A. M. A. which has been called the Basic Science bill. Briefly this bill states that all persons desiring to practice the "Healing Art" shall be required to pass an examination in the so-called basic sciences; viz: Anatomy, Physiology, Chemistry, etc. This bill has already become a law in several States, and is similar to the Single Standard Law in Massachusetts. This bill is entirely worthy of our approval and should receive the

unanimous and active support of this society.

On the 4th day of May, 1791, a small group of men gathered together at Exeter. Serious-minded men, possessed of high ideals, whose lives had been dedicated to the service of mankind—

Josiah Bartlett, Joshua Brackett, Hall Jackson, Nathaniel Peabody, John Rogers, Ebenezer Rockwood, William Cogswell, William Parker, Jr., Benjamin Page, and Isaac Thom.

These are names to conjure with; names so closely interwoven with the professional, political, and civic development of our State that to erase them would be to destroy the entire fabric.

On such a foundation was our Medical Society built.

These worthy gentlemen were of the Old School. Lister had not yet given to the world his epoch-making discovery that changed, almost over night, the hospital wards from charnel houses to havens of refuge and hope. The miracle which was performed under the Bulfinch dome of the old Massachusetts General Hospital was not yet even a dream, and modern Laboratories and instruments of precision, to them, would have seemed like Aladdin's lamp.

They were keen observers and students of human nature and emotion. With scientific limitations almost unbelievable today, they retained the universal unswerving confidence of their communities and were regarded with a reverence little less than Deity. They had, to a high degree, that which is possessed by few of the present generation, one of the things which has unfortunately been displaced by modern science and almost forgotten—The true Art of Medicine. Not Psycho-therapy. Not Mental Suggestion, but an Indefinable Something, like the Eternal Flame which brings warmth, hope, and comfort to all within its radius.

In our pursuit of Science and Truth let us not forget the glorious heritage left to us by these men.

It may not be given to many of us to sit with the Gods on Olympus, but each and every one of us can perform the task allotted to him honestly, conscientiously, and with unselfishness, and by so doing, see the beauty in this service; Beauty of Service like that exemplified by Celia Thaxter, the beloved poetess of our own windswept Isles, when she wrote:

"I lit the lamps in the lighthouse tower,  
For the sun dropped down and the day was dead;  
They shone like a glorious, clustered flower,  
Two golden and five red."

## CO-OPERATION BETWEEN THE FAMILY PHYSICIAN AND THE CONSULTANT\*

BY DANIEL FISKE JONES, M.D., F.A.C.S.

THIS is a time of big business, of coöperation in various branches of industry to make better and cheaper goods to compete with those of other countries. In medicine we have made only feeble attempts, as in various private clinics which have changed the course of events somewhat but have made no great impression. The great bulk of the medical profession is not well organized to care for the individual patient. It is true we have various organizations such as the American Medical Association and its State branches, but there is a great lack of coöperation between the family physician and those who can be of assistance to him and his patients.

Why should there be coöperation between the family physician and the so-called specialists?

(1) First and most important it would be for the benefit of the patient.

(2) It would help to prevent the increase of the various medical cults which are now gaining ground so rapidly.

(3) It would make the formation of many private clinics unnecessary.

(4) It would prevent many patients, who are able to pay, from going to the non-pay hospital clinics.

(5) It would make a better feeling between the family physician and the so-called specialist.

The consultant or specialist is, I believe, a necessary evil, if you so consider him, for the people must be cared for and be given the benefit, so far as possible, of all our present medical knowledge. That knowledge should not be for the benefit of those who live in the large cities only, but should be for the benefit of all communities. It is, we believe, an impossibility for the general practitioner to keep up with the progress in diagnosis and treatment of all diseases. We must, therefore, have some system whereby all may get the benefit of those who are working along special lines. If we take the selfish point of view and consider ourselves alone we must put our house in order from within or it will be done from without by the laity and the medical cults. I do not know what inroads the chiropractors and osteopaths are making in New Hampshire but I do know that in the Middle West the cults are becoming real problems. And to come nearer home, the Massachusetts Legislature nearly passed a bill establishing a separate board of registration for chiropractors last winter. And this bill was urged by many of the laity; among them such prominent men as Alfred Stearns, head master of Andover Academy, who wrote an open letter urging the passage of this bill. These cults are gaining ground not

simply because the laity want something new but because they are not getting what they want from the medical profession. In answer to a letter written to Mr. Stearns, protesting against his attitude, he replied that his secretary, his sister and other friends had first been treated by regular practitioners who had accomplished nothing. They therefore went to the chiropractor who cured them.

Within the last year many cases have been referred to me by osteopaths and chiropractors for serious diseases of which medical men could have made a diagnosis, at least with the aid of consultants, and yet nothing had been done for them. The osteopaths and chiropractors had recognized at once that there was something seriously wrong with the patient even though they could not make a diagnosis. These physicians who neglected to make a diagnosis and lost their patients were all within easy reach of consultants in Boston.

If we are to keep out the cults we must do it by better work than they are doing, by giving the patients what they need; that is, we must have coöperation for the benefit of the patient. Curses and disparagement will never prevent the growth of these cults. We must remember that the laity are still suspicious of the medical profession even though they cover it up better than they used to, and still feel that we are too narrow-minded to look into the various cults or to admit they are of any value when they, the laity, "know how wonderful they are".

Coöperation would make many so-called private clinics unnecessary, for the distances in New England are not great and patients can get to various hospital centers quite easily. Whether the private clinic is good or bad is a question which we cannot go into here. Probably the most irritating condition to the family physician is the non-pay hospital clinic. It is true that there are many abuses but it will always be difficult to prevent these abuses entirely. It should be understood, however, that many patients take advantage of these clinics because they do not know what else to do and the family physician does nothing toward helping them solve their problems. The family physician should be wide awake to the needs of his patient for advice and should not wait until the patient goes off to these clinics without asking his advice.

If a proper understanding of the value of coöperation could be brought about there would be better feeling between the practitioner and the specialist. It is my belief that the family physician is the most abused and overworked man in the profession, and I believe that the medical and surgical specialists appreciate his position

\*Read at the Annual Meeting of the New Hampshire Medical Society at New Castle, June 22, 1927.

more than any other group of people. The laity while fairly well informed on medical subjects at the present time, still have no mercy on the family physician because he does not know everything. He is supposed to know medicine, surgery, and obstetrics, and is expected to be able to make a diagnosis of the most unusual and difficult diseases. While he must know a great deal about obstetrics I believe that his greatest difficulty lies in determining what to do about the acute abdominal conditions and cancer. In these groups one will find the great majority of preventable deaths. The most important of these conditions are the acute abdominal diseases, such as extra-uterine pregnancy, perforation of a hollow viscus, intestinal obstruction, acute appendicitis, acute cholecystitis and many others. How is it possible for the practitioner to make a correct diagnosis in these conditions when it is made so evident in all papers upon these subjects that diagnosis is often very difficult or impossible even to the specialist? I believe that the family physician should not be expected to make a diagnosis but, as I have said in many papers, he should be required to know only that there is something serious enough to demand a consultation with somebody who has had more experience in such conditions than he. It is the same problem in cases of malignant disease. The family physician should not be expected to make a correct diagnosis but should know that there are suggestive signs or symptoms which demand further investigation. At least the patient has a right to expect that the practitioner would not treat a patient with typical symptoms of malignant disease of the colon without seeing the patient for two months, and then by diarrhoea mixtures for four months more without either a rectal examination or asking for help in making a diagnosis, as was done in a recent case. It is such treatment as this that drives the patient to the chiropractor, as happened in several cases which were referred to me during the last year. I will admit that the family physician has not had much reason for taking particular interest in the acute abdominal cases, for the surgeon does in most cases give the patient and everybody concerned the impression that he, by his operation, has performed a wonderful feat and cured the patient, while as a matter of fact the only possible way to obtain good results in acute abdominal conditions or in malignant disease is by receiving the patient early in the course of the disease from the family physician. When a good result is obtained, therefore, by early operation it is the family physician who should be given the credit rather than the surgeon.

When we consider all the laboratory tests and the various complicated examinations which must be made on many of these patients, how can the family physician give them their proper value even if he can have the tests made? To give each test its proper value is one of the most difficult tasks that the consultant has at the pres-

ent time. Not only must these tests and examinations be given their proper value in relation to all the other information we have about a patient, but in order to put any dependence upon them at all we must know that there are many inaccuracies, especially in chemical tests, and that the inaccuracies vary very much with the individual who does them, and the value of chemical tests performed by technicians without proper supervision is practically nil, in fact, they often do much harm.

Before we can know the value of our X-ray examinations we must know the percentage of accuracy in that particular condition and we must know the accuracy of the roentgenologist who takes the plates. We must also have some experience in interpreting these plates ourselves in order to check up the roentgenologist as much as possible. As an example, one of our best known roentgenologists reported definitely to a family physician that his patient had a duodenal ulcer and chronic appendicitis. When going over the plates with the roentgenologist he stated that a small defect in the duodenum might be an ulcer if the clinical history was very definite. And when asked why he made a diagnosis of chronic appendicitis he simply said: "I cannot see the appendix and she probably has chronic appendicitis."

Two cases within a short space of time show the difficulties the surgeon has with the roentgenologist. A case was reported as chronic appendicitis which proved to be a carcinoma of the hepatic flexure. Another was reported as a chronic cholecystitis which proved to be a carcinoma of the recto-sigmoid junction. How is it possible for the practitioner to have sufficient experience to know what value to give these reports when made even by the best roentgenologist? The only possible way to make a diagnosis is to know the history, to consider the physical examination and to give all laboratory and X-ray work its proper value. Don't blame the roentgenologist, for he gives you the information as he sees it on the plate. It is for you to supply the rest, and how is it possible for a family physician to do it without extensive experience? For the laity to expect the physician to be able to make proper use of all the modern methods of examination seems to show a lack of appreciation of the methods of modern diagnosis, and it should be our duty to teach the laity about these difficulties.

As an example of the lack of consideration of patients for the family physician and his ability to diagnose unusual and complicated diseases, we have a patient at the present time with a disease which is comparatively rare and difficult to diagnose. The family physician, instead of saying he did not know what the condition was and advising the patient to go to a medical center, made several different diagnoses and finally called in as a consultant another family physician. But as neither had ever seen a case of the

kind before, they were naturally very indefinite in their statements to the patient. The patient had an X-ray taken on his own account and as this seemed to prove that his family physician had made a wrong diagnosis he became suspicious and left this physician for a medical center. It was discovered after a diagnosis had been made and an operation done that the patient considered that the family physician had made a great mistake and that he was not treated properly. This patient, a business man and politician, should have had more consideration for the family physician because, as I see it, the only error made was in asking a friend, who had had no different experience from his own, to see the patient in consultation, when with such a complicated disease he should have sent him to a consultant.

Here is where we probably differ. You are probably saying to yourselves that I am assuming that the specialist knows more than the physician. There you are wrong. I am simply assuming that the specialist should know more about his particular subject than the physician who has to know something about so many diseases. It is my belief that many practitioners would make better specialists than those who are specialists. It is simply a question of what a human being can do or know. If the practitioner can know as much about a special subject as those who give all their time to it, surely the world is upside down and the family physician should do the consulting and the specialist should become the general practitioner or be put out of medicine entirely.

How is better co-operation to be brought about? This is a difficult question to answer, but I believe it must be done very largely by the practitioner who must make every effort to do the best for his patient. The machinery is already to work; it is only necessary for the practitioner to use it.

Let us consider for a moment some of the reasons why the machinery does not work. The family physician should be the adviser to his patients in regard to consultants as well as diseases and in order to do this intelligently he should visit at intervals the neighboring hospital center which will take care of the great bulk of his cases, and also the larger hospital centers where his more complicated cases will be looked after. The men in these various centers and the facilities which they have should be known to the practitioner in order that he may properly select men for the various types of disease. This is necessary for the reason that in the city we have many types of so-called specialists. There is the general practitioner who lives in the city and assumes, for the benefit of those who come from out of town, that he is a consultant. Another type is the man who does a general practice in a suburb and decides that he will become a consultant and opens an office in the city where he is present on certain days of the week.

Then there is the man who starts out with the intention of becoming a consultant and while preparing himself for this work does a general practice. This man is a legitimate type of consultant. In addition to that there are men who have had hospital training and who have given their whole time to special lines of work and are therefore qualified to call themselves specialists or consultants. It will be seen that the patient will be getting very little more than he could have received from his own physician if he comes in contact with the first two varieties of specialists. Those who have not the time or inclination to learn what they can about the various consultants can easily overcome this handicap by making one man, whom he may choose in the city, his adviser in regard to consultants. If this man is fair and honest probably the best results will be obtained in this way.

At the present time there is a type of consultant to be found in the city who has all the facilities for making various tests and examinations. These tests and examinations are so numerous and so complicated that he is able to send the results of those examinations to the family physician but he is unable to put all the information together and give the patient a diagnosis. We must be careful that we are not using the X-ray and the various laboratory tests simply to impress people, as was the case in the use of the old glass disc electrical machine until quite recently.

As an example, a patient recently came to me with an advanced and hopeless carcinoma of the cervix. The so-called specialist to whom she went sent reports of everything that could possibly be done in the way of chemical and X-ray examinations. There were many sheets covered with figures and reports. Among other things they discussed the question as to whether the patient should be operated upon because of a slightly increased metabolism. There was absolutely nothing that could be done for the patient. While radium was used there was little or no hope of accomplishing anything.

Another specialist on gastro-intestinal disease sent a patient for removal of a chronic appendix because the roentgenologist had made that diagnosis. The history and physical examination alone made carcinoma of the colon a perfectly definite diagnosis.

Another type of consultant who is bad and who does harm to the physician and the patient is the incompetent surgeon. There are many types of incompetent surgeons. They do not all lose their patients for many of them are quite capable of operating and having their patients recover well. It is the incompetent surgeon who does not make a diagnosis or who is not competent to carry out the necessary operation when he gets into the operation who does harm. A recent case of this type was one of carcinoma of the colon. The patient had been operated upon a year before and pronounced inoperable. At the end of a year the patient became dissatisfied and

went to a large hospital where the growth was easily removed. In a recent case a surgeon who admitted he did not do amputations of the breast removed a malignant nodule and waited ten days before referring her to a surgeon. This was not an immediate death but it is sure to cause the death of the patient earlier than a proper primary operation. There is another type of consultant who does great harm; that is the medical consultant who makes a diagnosis usually the same on practically all his patients without any effort to determine the real cause of the condition. There is a medical consultant who always treats his patients for indigestion without any effort to determine whether the patient has ulcer, gall stones, or cancer. There is another who always takes an X-ray and finds a sharp kink at the splenic or hepatic flexures or finds an open ileo-cecal valve.

There is one habit consultants have for which they have been much blamed by the family physician, but I cannot quite see it from their point of view. I have been told by family physicians that one of the worst things a consultant can do is to send a patient to another consultant without first getting the consent of the family physician. The reason I doubt the soundness of this complaint is that the first consultant should have the privilege of sending the patient to any consultant he thinks can be of special benefit to him, that is to the patient. Many times it would delay the patient tremendously to have to refer to the family physician before getting another opinion, and it means a loss of continuity which is a detriment to the patient. In the great majority of cases, at least, I feel that the family physician should leave his patient in the hands of the consultant to whom he first sends him.

These are some of the types of consultants and specialists from whom you suffer. As to the other side of the picture, many times surgical consultants are asked to see patients not as consultants but as technicians. This is putting the surgeon in an uncomfortable position for few surgeons would remain surgeons if they were to be simply technicians. This condition is brought about by the family physician asking the surgeon to operate for this or that disease, and in order to please the family he has told them that the surgeon is to operate for a certain disease. The surgeon is, or should be, the one individual to determine what should be done for he should be the best judge as to what surgery can do for the condition present. This, as you can see, is the cause of many unnecessary operations. Co-operation in this case can best be accomplished if the family physician will consider the surgeon, first as a consultant and, second, as an operating surgeon. To have an operation planned and settled in the minds of the family and patient puts a heavy strain upon the surgeon if he does not see the case in the same light as does the family physician. While the older surgeon may not feel the responsibility too much, the younger man is

often pushed into an operation much against his better judgment.

In a recent case a young boy was seen with what was supposed to be an appendix, but as the diagnosis could not be confirmed an effort was made to avoid operation. It was suggested that the boy had a cold, but the physician put this aside by saying it would do no harm to operate under such conditions as he had operated upon two cases of pneumonia without doing harm. Operation was put off and in twenty-four hours the boy developed a case of measles.

Another serious problem is the demand of patients and certain physicians that serious operations shall be done at home, or near home, and far from the surgeon. This is putting a very serious handicap upon many patients, for it can easily be shown that in many operations the difference in mortality between cases operated upon at a distance from the surgeon and away from his immediate care runs up as high as ten per cent. In a recent case a family physician demanded that I operate upon a carcinoma of the sigmoid 125 miles from Boston. I felt sure that the mortality of the operation done there would be at least ten per cent. higher than if done where the after-care could be under my own supervision. We appreciate that this is taking patients away from you. But is it fair to the patients to have them operated upon under such a handicap?

There is a great lack of co-operation between the consultant and the family physician in cases which do not require immediate operation. Careful observation by the family physician and frequent consultation with the surgeon with every effort on his part to control the patient, would often lead to a diagnosis and proper treatment which could not otherwise be brought about. It is often impossible to make an accurate diagnosis at one visit and often surgeons are led to operate after one visit because they appreciate that once the patient leaves his office there will be no further contact with the patient. The surest way to accomplish something for the patient is for both the physician and surgeon to work together, each helping the other to the best of his ability and entirely for the good of the patient. The patient rarely loses by such a combination. If no headway can be made, then other consultants can be called in and the information gained up to that point can be transferred much to the benefit of the patient in many cases. It is the habit of patients these days to go from one consultant to another without taking any information obtained by the previous consultant, much to the detriment of the patient.

It will be seen from the above statements, I am sure, that it is of the greatest importance for the family physician and consultant to work in harmony, and to work *with* rather than *against* each other. It will, I think, be seen that it is of the greatest importance to have a consultant who can be depended upon, not alone for a particular

patient but as an adviser in regard to other consultants. At least it is true for those who live far from hospital centers and those who rarely visit those centers.

Much has been said on the side of the family physician and very little on the side of the consultant heretofore. There are, we believe, faults on both sides but all could be cleared up by a reasonable consideration for each other, and

what is more important a reasonable consideration for the patient. We must work together to improve matters and do better work for our patients, or the medical cults will be invading New England as they have in many places, and the regular medical man will find himself looking for the patients who have deserted him for the chiropractor.

## PUBLIC HEALTH ADMINISTRATION IN NEW HAMPSHIRE

BY JAMES A. TOBEY, LL.B., DR.P.H.

**N**EW HAMPSHIRE is especially notable for the long and secure tenure of office of the personnel connected with the state health organization. In the forty-five years of the existence of the state board of health, there have been only two executives and only two presidents of the board. The first secretary held office from 1881 to 1918, when he was succeeded by the present incumbent. The president of the board, who is an engineer, has been a member for over thirty years and president since 1914. The president whom he succeeded had been in office for thirty-two years. Other members and employees have also had long terms of service, the present secretary, for instance, having been connected with the department for a number of years before he succeeded to the office.

### HISTORY AND DEVELOPMENT

Due largely to the efforts of Dr. Granville P. Conn a law creating a state board of health was approved on August 16, 1881<sup>1</sup>. As was usually the case in the New England States, there were already local health officers, such officials having been appointed as early as 1842. A comprehensive system of local health administration was not, however, adopted by the state until 1897. A state laboratory of hygiene under the state board of health, was established in 1901.

Although new duties have been added to the functions of the state board of health from time to time the legislature has never altered its original composition nor the powers set up in 1881. In fact, the only law dealing with such matters since that time was an act of 1913 (Chapter 29) providing a seal for the state board of health. New Hampshire was one of the original states in the Federal death registration area, established in 1900, and in the birth registration area, established in 1900, and in the birth registration area of 1915. Dr. C. V. Chapin awarded the state 320 points out of a possible 1000 in his rating of state health work in 1914, New Hampshire ranking 19th in the 48 states. He wrote that "the New Hampshire department of health has been managed in a conservative manner but nevertheless has done much good<sup>2</sup>".

### PRESENT ORGANIZATION

The state board of health consists of the governor and attorney general as ex-officio members, three physicians, and one civil engineer. The last four members are appointed by the governor, with the advice of his council, for terms of four years, so arranged that two terms expire every two years. The board receives expenses, but no compensation.

The board chooses its own president and appoints a secretary who holds office at its pleasure. The engineer member has been president of the board for the last thirteen years. The secretary is executive and is required by law to be a physician. He may be a member of the board. The salary of the secretary is fixed by law.

For the fiscal year ending June 30, 1928, the board received an appropriation of \$59,288.

### POWERS OF THE DEPARTMENT

The general powers of the state board of health are given in the law of 1881 as follows:—

They shall take cognizance of the interests of health and life among the people; shall make sanitary investigations and inquiries concerning the causes of epidemics and other diseases, the sources of mortality, and the effects of localities, employments, conditions, and circumstances on the public health; shall advise and assist town health officers in making investigations into sanitary matters in their towns; and shall take measures to diffuse among the people such information on the subjects above named as may be useful. They shall make such additions to or modifications of the rules and regulations established by town health officers as the public good requires.

Other more specific powers and duties may be summarized as follows:

1. *Rules and regulations:* While the board does not have general power to make regulations, various laws have from time to time given specific power to make regulations concerning such subjects as nuisances, quarantine, public water supplies, medical inspection of schools, common drinking cups, and towels, disease control in unincorporated localities, occupational diseases, venereal diseases, and foods and drugs.
2. *Vital statistics:* The board has complete

supervision over the collection and compilation of vital statistics.

3. *Foods and drugs:* The board enforces the food and drug laws of the state.

4. *Laboratory:* The board maintains the laboratory of Hygiene, where free examinations are made.

5. *Sanitation:* The board is authorized to employ sanitary inspectors to investigate local sanitary conditions in conjunction with and upon request of local boards of health and in cases where expert advice is deemed necessary by the state board of health.

6. *Tuberculosis:* This disease must be reported direct to the state board of health, which makes laboratory diagnoses and takes steps to control it.

7. *Quarantine:* The board may establish quarantine to prevent the spread of epidemic diseases from without the state.

8. *Water:* The board has original jurisdiction over waters used for domestic purposes, and also approves plans for water supply systems.

9. *Schools:* The board is required to investigate sanitary conditions of schools.

10. *Local administration:* Local health officials must make current reports to the state board. The board appoints health officers for towns, on recommendation of the selectmen.

11. *Venereal diseases:* The board is authorized to examine, detain, quarantine, and treat any person reasonably suspected of exposure to venereal disease.

#### ADMINISTRATIVE ARRANGEMENT

Under the direction of the secretary there are the following divisions of the state board of health:

Division of Chemistry and Sanitation.

Division of Epidemiology and Venereal Diseases.

Division of Maternity, Infancy and Child Hygiene.

Division of Pathology and Pathological Bacteriology.

The secretary is registrar of vital statistics. There is also a bacteriological laboratory at Hanover.

The Division of Chemistry and Sanitation has charge of water supplies, sanitary engineering inspections, summer camps, foods and drugs, milk, and miscellaneous activities. The chief of this division, who is the board's chemist, is also required to make toxicological and other examinations in criminal matters, under the medical referee law.

The Division of Venereal Diseases enforces the venereal disease law and conducts general educational activities against these diseases.

The Division of Maternity, Infancy and Child Hygiene is also the Division of Public Health Nursing. It conducts educational work and ad-

ministers the Federal Maternity and Infancy Act, which has been accepted by the state.

The Bacteriological or Diagnostic Laboratory makes bacteriological, pathological, clinical, and serological examinations. The examinations in connection with the bacteriology of foods and waters are, however, carried out in the laboratory of the chemical division.

#### REFERENCES

1 Fletcher, R.: The State Board of Health of New Hampshire. Quarterly Bulletin of the Board, April, 1915. Annual Report 1915-6.

2 Report on State Public Health Work. American Medical Association, 1914, page 38.

#### SMOKE STUDIES

Smoke in the atmosphere, especially when combined with mist to produce fog, brings about a very great lowering of the daylight. At the present time a great loss of light results in large cities from the effect of smoke. A study of the decrease of light by smoke, now being made by the United States Public Health Service in New York City, at the lower end of Manhattan Island where the air is very smoky, showed an average loss of daylight due to smoke in January of 1927, on sunny days, of 42 per cent. at 8 o'clock in the morning, and of 18 per cent. at noon. These amounts of loss of daylight decreased, as the year advanced, to 33 per cent. at 8 A. M., and 6 per cent. at noon, in June. These figures are for clear sunny days; for foggy days, the loss is much greater. The loss of light due to smoke in the atmosphere is greatest early in the morning or late in the afternoon, and least at noon. As would be expected, the loss of light is greater in the winter than in the summer. The figures given show the great importance of getting rid of smoke in our great cities. Loss of daylight or the light rays, is not the only evil resulting from the presence of smoke in the atmosphere; smoke also cuts out to a much greater extent the ultra-violet rays which are so necessary for good health.

The amount of light reaching us at different times of the day, at different times of the year, and under different conditions of weather is of interest. Illumination is measured in a unit called the foot-candle, one foot-candle being the illumination on a surface at a distance of one foot from a standard candle. Records of daylight in Washington, D. C., have been made since July, 1924, by the United States Public Health Service. These records show that at noon on a bright day in midsummer the illumination seldom exceeds ten thousand foot-candles. In midwinter at noon on a bright day it seldom exceeds 3,500 foot-candles. The difference in illumination on sunny and cloudy days is illustrated by the average illumination for such days in December, 1924, and in June, 1925. In December the average illumination on cloudy days was found to be about 23 per cent. of that on sunny days. In June this ratio was about 26 per cent. Great variations in daylight take place when small clouds pass over the face of the sun on a clear day. In such cases the light may fall from 9,000, or more, foot-candles to 3,000, or less, in one minute's time, and return to the original amount during the succeeding minute.

Large increases of light may be produced by the reflection of light from banks of white clouds to the north of the sun, and very great decreases by the heavy clouds of thunderstorms.

Sunlight is of great interest and importance, since work in the office, shop, schoolroom or on the farm is performed under it; and the preservation of eyesight, the general health, and the prevention of accidents, throughout childhood and adult life, are largely dependent upon having plenty of sunlight both inside and outside the buildings in which we live and work.

—United States Public Health Service.

**Case Records  
of the  
Massachusetts General Hospital**

**ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN  
WEEKLY CLINICO-PATHOLOGICAL EXERCISES**

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

**CASE 13531**

**ONE WEEK'S HEADACHE, VOMITING  
AND MALAISE IN A GIRL OF FIFTEEN**

**NEUROLOGICAL DEPARTMENT**

A fifteen-year old American schoolgirl entered the hospital October 23 complaining of general malaise and vomiting.

On the 12th of October she was struck in the occipital region by a thick pad of tar paper. The blow was painful but did not cause bleeding or unconsciousness. During the next four days she had considerable left parietal headache. On October 16 she had malaise and vomited several times, not retaining any food. The following day she went to school but returned at recess time. She complained of headache at times. The family physician found a temperature of  $99^{\circ}$  to  $100^{\circ}$ . From this time until her admission she had projectile vomiting several times and almost constant headache. For a week she had had malaise and loss of appetite. At admission she was prostrated and had slight stiffness of the neck.

Her past history is entirely negative. No family history is recorded.

Clinical examination showed a well nourished, semistuporous girl with a flushed, slightly drawn face and hot dry skin, tossing restlessly. The neck was markedly stiff. She complained of pain in the back of the head and neck. Fundus examination showed the discs blurred and irregular. The outer third of the right disc was clear. The left disc was somewhat more blurred than the right, suggesting beginning choking or optic neuritis. Along the veins running superiorly from the right disc there were small glistening, shimmering refractile areas. The heart was normal. Over the apex of the right lung in front there was an area of bronchial breathing with no rales or dullness. She was so uncomfortable that no careful examination was made of the back. Rectal and vaginal examinations were not done. The rest of the general examination was negative.

A neurological examination was very incomplete. Cranial nerves normal. Motor system normal except for the stiff neck and general malaise and sensitiveness, especially of the back muscles. Sensation to touch normal. Other forms of sensation not tested. Finger-to-finger

and finger-to-nose done normally. No other coordination tests made. All deep reflexes normal. Slight Kernig on both sides. Abdominal reflexes doubtfully elicited; apparently present on the left, not on the right, no Babinski. Plantar reflexes atypical. There was a defensive dorsiflexion of the foot and toes on each side.

Urine normal. Blood: 8,500 leucocytes. Wassermann negative.

Temperature  $98.3^{\circ}$  to  $102^{\circ}$ , with a daily afternoon rise and a terminal rise to  $105.5^{\circ}$ . Pulse 61 to 96, rising in the last four days and reaching 180 the day of death. Respirations normal until October 29, then 20 to 40.

X-ray plates of the skull and chest failed to show any definite variation from the normal. The chest plates were somewhat unsatisfactory because of motion, so that a definite negative diagnosis could not be made.

A lumbar puncture was done in the Emergency Ward the day of admission. 25 cubic centimeters of slightly turbid colorless fluid with a ground-glass appearance were withdrawn from the fourth and fifth lumbar space; initial pressure 210, otherwise dynamics normal; no evidence of block; total protein 73, Wassermann negative, goldsol 0001110000, 250 cells, 18 polymorphonuclears, the rest lymphocytes, sugar 28, chlorides 661.

October 24 a cistern puncture was done. About 75 cubic centimeters of clear "ground-glass" fluid were withdrawn, initial pressure 400, 1,800 cells, nearly all apparently lymphocytes, sugar 27, chlorides 629, total protein 75, goldsol 0001100000.

Another fundus examination by an oculist showed some hyperemia of each disc, especially nasally, with hazy margins more or less confined only to the nasal half in the right eye. There was a suggestive area of old radial hemorrhages in the nasal margin of the left disc. The vessels were tortuous and somewhat engorged. He was unable to get any elevation.

October 25 the reflexes were again increased on the right side. Another cistern puncture was done, initial pressure 330. About 75 cubic centimeters were withdrawn. The headache and semistupor were almost instantly relieved, as they were after the first puncture. The reflexes were found to be all normal and equal. The patient was drowsy part of the time. Several times during the day she had vomiting, once or twice projectile. October 26 another oculist found that in the past two days the left disc showed more hyperemia and some venous dilatation. The right eye showed a very small amount of papilledema in addition to hyperemia of the disc.

October 27 a third cistern puncture was done. The initial pressure was 539 millimeters. About 90 cubic centimeters of fluid were withdrawn and 30 cubic centimeters of air injected.

October 31 the patient died.

### DISCUSSION

BY RICHARD C. CABOT, M.D.

#### NOTES ON THE PHYSICAL EXAMINATION

I suppose somebody was speculating as to whether these refractile areas in the retina could be miliary tubercles, which we have all read about but most of us have never seen.

One cannot say that the area of bronchial breathing in the right lung is in any way convincing evidence of lung disease. If it were at the other apex one would take it more seriously, or if other signs besides bronchial breathing were there. Apparently that is the only sign, and although we should like to get evidence of some tuberculous focus from which meningitis might arise, I do not think this sign is to be taken seriously.

I cannot be sure what this dorsiflexion of the feet and toes is,—whether it is reflex or whether it is a voluntary movement.

The pulse is on the whole notably low.

Of course what we are looking for especially is evidence of tuberculosis or malignant disease in the lungs.

The spinal fluid gives a low sugar, a high protein, and a high initial pressure, the chlorides somewhat diminished, all of which goes very well with a meningitis. The cistern puncture shows essentially the same fluid. The second cistern puncture was presumably done for therapeutic rather than diagnostic reasons, and had the effect that one does it for under these conditions. It is first-rate palliative treatment.

#### DIFFERENTIAL DIAGNOSIS

With this spinal fluid I do not see that we have a right to consider anything except cerebral abscess and chronic meningitis, of which tuberculous meningitis is the commonest known type. She is at an age when either of these conditions might perfectly well be found. For cerebral abscess we expect a cause, a septic focus elsewhere in the body of which we have no evidence in her case. It might have been conceivably an otitic abscess. Usually we should have heard of local ear symptoms if it had been so.

The findings in the spinal fluid leave no alternatives that I know of except (a) tuberculous meningitis, either alone or as part of miliary tuberculosis, and (b) cerebral abscess discharging in this way. There are many other conditions that give us a high cell count in the spinal fluid, but those can be easily ruled out. We get a high cell count with sleeping sickness, with poliomyelitis, and in some cases of pneumonia even when there is no demonstrable meningitis, (the meningismus of pneumonia.)

I think the patient has tuberculous meningitis rather than abscess. As to the chances of its being part of a general miliary tuberculosis I do not think we can say anything except that

it usually is. The fact that the X-ray plate of the lungs was not satisfactory is enough to prevent our paying much attention to the question of miliary tuberculosis there. It would not show in such a plate even if it were there. We can surmise that there is something in the right apex, but nothing shows in the plate. Neither apex shows any clouding, so I think we can disregard that bronchial breathing that we had some doubt about in the beginning.

#### CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Tuberculous meningitis.

DR. RICHARD C. CABOT'S DIAGNOSIS

Tuberculous meningitis.

Probable miliary tuberculosis.

Cerebral abscess.

#### ANATOMIC DIAGNOSES

##### 1. Primary fatal lesions.

Miliary tuberculosis.

Tuberculous meningitis.

##### 2. Secondary or terminal lesions.

Bronehopneumonia.

Menstruating uterus, last stage.

DR. TRACY B. MALLORY: Tuberculous meningitis was found. There was a diffuse clouding of the meninges, particularly beneath the tentorium and running down the spinal cord, with comparatively little involvement over the cerebrum.

There were a few tubercles elsewhere in the body, none in the lungs, but a few were picked up in the spleen and a few by microscope in the liver. There was no evidence of pulmonary tuberculosis. We have no idea as to the focus from which the process developed.

DR. CABOT: Was there no old process anywhere, no glandular process?

DR. MALLORY: None was found in the organs examined.

DR. CABOT: Isn't it unusual not to find any older focus?

DR. MALLORY: It is. In fact it is practically impossible if one does a complete necropsy with all the lymph nodes included, the cervical and the axillary. In a few of the cases the primary focus will be cervical rather than pulmonary, and in another small group intestinal. Nasal, corneal, skin, and very rarely genital primary lesions have been reported.

DR. YOUNG: Do you think a blow on the head had any part in the etiology of the condition?

DR. CABOT: I do not think so. But I do not know how we are going to decide a case like that. There are many cases in which we have a history like this, an illness that came on after such or such an event, because the human mind demands a cause and cannot think of any other.

On general principles I should say apparently not. It does not seem to have been a very heavy blow.

DR. YOUNG: But the train of symptoms was continuous.

DR. CABOT: Yes.

DR. MALLORY: The same question came up to me a while ago. A man was struck on the head by a telegraph pole and about three weeks after that died of tuberculous meningitis. Whether it had any effect I do not know how we can say.

DR. CABOT: We see so many cases of tuberculous meningitis where the history is identical with this except for the blow that I do not see how we can say anything about that as causal.

DR. MALLORY: Of course there is the possibility that the blow might have some influencing effect on it. For instance, the development of an acute osteomyelitis following a kick in the shin is a common story in children and possibly would develop a locus of decreased resistance. If the tubercle bacilli were available, trauma might determine the point at which they would settle and produce the disease.

#### CASE 13532

#### HOW LONG SHOULD A PAIN BE ENDURED?

#### SURGICAL DEPARTMENT

A married American woman fifty-one years old came to the Emergency Ward July 9 in a very critical condition, complaining of abdominal pain and vomiting.

Eighty hours before admission she was seized with sharp pain in the epigastrium so severe that she almost fainted. At the onset she vomited. The pain and vomiting continued. Her bowels had moved regularly. She had noticed no blood. Since the onset she had been unable to sleep or eat. The pain had continued in the same place, although radiating to the back.

Examination showed a well nourished woman, very ill. The whole abdomen was distended, spastic and very tender. Most of the spasm and tenderness were bilateral in the upper abdomen. There was definite fluid wave. No mass could be made out. Pelvic examination showed tenderness in both vaults but no mass or induration. The pulse was very weak and thready. The rest of the examination was negative.

Before operation urine and blood not recorded, temperature  $100.4^{\circ}$  by rectum, pulse 134, respirations 22.

Operation was done immediately. She was very ill and in shock after it. Seven hours later she died.

#### DISCUSSION

BY EDWARD L. YOUNG, JR., M.D.

This sounds to me like a condition which ought to have been not more than eight hours old when first seen rather than eighty. The picture is so brief that it really comes down to a question of the most probable cause of an acute abdominal emergency starting with a sharp pain in the epigastrium.

Are there any things we can rule out? Her bowels have moved, so that it is presumably not acute intestinal obstruction. Moreover it is not the picture that we associate with that condition. The three commonest conditions which start with a sudden severe epigastric pain are (1) perforation of a peptic ulcer, (2) gall-stone colic, (3) pancreatitis. We must not forget, however, that acute appendicitis can always be present as a cause of acute abdominal emergency, whatever the symptoms at the onset. The fact that she has a fluid wave is important if true, because observations of that kind are not always borne out at operation or necropsy.

What is there in favor of perforated ulcer? The sudden sharp pain of great severity. That is characteristic more of perforated viscus than of either of the other conditions. A patient could go eighty hours with perforation and still be alive. At that time however there would be peritonitis present; and rarely do they live when perforation has been present as long as that. We have absolutely no past history to give us any clue as to previous digestive symptoms, but it is not necessary to have any digestive symptoms previous to the onset of perforation. There have been within three weeks in this hospital two cases of perforation where there was no previous symptom of indigestion either as given in the ordinary course of history or as elicited on cross-examination. Moreover, both of those were the non-indurated type, which fitted very well with an acute ulcer that did not need to have previous symptoms. So it is possible that whether she did or did not have previous symptoms this was a perforation. The pain, the vomiting, the picture as we see it is consistent with that.

Pancreatitis, if it was of a fulminating type, might well leave her at the end of three days about where we see her.

Cholelithiasis presumably would not go on to this termination except in those rare cases of fulminating cholecystitis which we do see once in a while. A perforation of the gall-bladder into the abdominal cavity is uncommon.

Of course there are a great many cases of acute abdominal emergencies that might start in this fashion. The pain was epigastric, which means that there might be trouble anywhere in the small intestine, a transverse colon perforating in the region of the epigastrium, and as I said appendicitis is always to be considered, as

it may show the most extraordinary and atypical symptoms.

Now the question comes up, should this woman be operated on or not? The basis for operation is the somewhat trite saying that you can't spoil a bad egg; because as this picture is presented to us there is no hope for her without treatment. The so-called Ochsner treatment—nothing by mouth, fluid supplied intravenously and subpectorally, and the patient in Fowler's position with morphine enough to keep him absolutely quiet—I still feel is of debatable value in most cases. If the patient is so sick that we cannot operate, I believe he is generally so sick that Ochsnerizing will not do any good. In other words, it seems to me the only thing we can do here is to say that it is probably hopeless, but to see if by chance she will stand local anesthesia and operation and if we find a condition which we might possibly help.

If it is a perforation and the perforation took place at the end of a fasting period so that there were few if any organisms poured into the abdominal cavity, at the end of three days infection might not be so far advanced but that closure of the perforation might give her a chance.

This diagnosis is anybody's guess, because in a situation like this the appearance of the patient and the feel of the abdomen tell more than any story can. I think with epigastric pain alone it is not fair to consider any of the more unusual conditions, like twisted ovarian cyst, which although they can give atypical symptoms should be obvious on examination if they are sufficiently marked to give pain in the epigastrium.

I presume that they found a general peritonitis at this stage of the game.

#### DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

General peritonitis.  
Perforating peptic ulcer?  
Acute pancreatitis?

#### PRE-OPERATIVE DIAGNOSIS

Acute pancreatitis.

#### OPERATION

Ether. The abdomen was opened through a high right rectus incision. There was free blood tinged fluid in the peritoneal cavity and fat necrosis over the omentum. An opening was made into the lesser peritoneal cavity. The pancreas presented as a large hemorrhagic tumor. In making an incision through the capsule blood and necrotic tissue escaped. The opening was enlarged with the finger and a rubber drain placed into the pancreas. An opening was made between the colon and the stomach and another cigarette drain was placed into the pancreas. The gall-bladder was drained by means of a catheter. No stones could be felt in the common duct.

#### FURTHER DISCUSSION

The fulminating type of pancreatitis such as this carries a very high mortality, and there is nothing unusual in her continuing steadily downhill and dying in seven hours.

#### CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Acute hemorrhagic pancreatitis.

#### DR. EDWARD L. YOUNG'S DIAGNOSIS

Acute hemorrhagic pancreatitis.

#### ANATOMIC DIAGNOSES

##### 1. Primary fatal lesion.

Acute hemorrhagic pancreatitis.

##### 3. Historical landmarks.

Emphysema.

Arteriosclerosis.

Operation wound, cholecystostomy.

DR. MALLORY: The operative record has already told almost all the pathology involved. There was an acute hemorrhagic pancreatitis as the presenting symptom, with widespread fat necrosis all over the omentum, mesentery, and throughout the pancreas.

It is always interesting to try to find an etiology for these cases. Sometimes we succeed, more often we do not. This woman did have a very definite gall-bladder pathology. The gall-bladder wall measured about four millimeters as against a normal of less than two, and there were some rather black, gritty, tiny stones in it. One of the classical things to find is a medium-sized gall-stone obstructing the ampoule of Vater in such a way that bile can be forced into the pancreas, but nothing of that sort was found here. In most of the cases we have to rest content if we do find evident pathology in the bile passages as in this case.

DR. YOUNG: Do you find pathology in the biliary tract as a rule?

DR. MALLORY: In about sixty per cent. of cases,—little more than half. I do not believe it is much more than that.

DR. CABOT: Why is it that acute pancreatitis is so apt to be hemorrhagic? Why is the blood feature so prominent?

DR. MALLORY: I think possibly that depends on the same factor as the fat necrosis. Inflammation in the pancreas liberates activated trypsin, which proceeds to digest all the tissues it comes in contact with. I think it is possible that it affects the walls of the arteries as it does the pancreas.

DR. CABOT: As I remember, Dr. Fitz distinguished pancreatic hemorrhage from hemorrhagic pancreatitis. Does anybody do that now? He called it pancreatic apoplexy.

DR. MALLORY: I doubt if anyone could distinguish. It is possible such a thing occurs, but I am sure within a few hours there would be inflammation anyway.

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## THE COMING TERCENTENARY OF HARVEY'S "DE MOTU CORDIS"

It is difficult to think of William Harvey's "Anatomical Dissertation upon the Movements of the Heart and Blood in Animals" in terms other than the superlative. The book, published in 1628, is without doubt one of the greatest medical works of all times and takes its place on the bookshelf of immortal volumes beside the "Fabrica" of Vesalius and the "Inquiry" of Jenner. Its importance, moreover, lies in its relation to modern medicine. In Harvey's book, for the first time, one finds the "idea of measurement in any biologic investigation." The quantitative or mathematical demonstration of the circulation of the blood by Harvey is more important than the "discovery," for, as Garrison states, "with this start, physiology became a dynamic science." Physiology, moreover, in the intervening three hundred years, by applying Harvey's method of investigation, has practically revolutionized medicine.

The medical world, in 1928, will take cognizance of Harvey's gift to all of us and celebrations of the tercentenary are already being planned in many countries. The year of pub-

lication of his book, 1628, gives us a definite date for our commemorative exercises, but when one examines Harvey's life, it is obvious that his ideas of the circulation of the blood were formulated by him and expressed in public many years before that date.

Harvey was appointed to the office of Lumleian lecturer on August 4th, 1615, a position which he held until 1656. The duties entailed by the lectureship, which was founded in 1581 by Lord Lumley and Dr. Caldwell at the College of Physicians, were exacting. He was to lecture on surgery for an hour, twice a week throughout the year, reading for three-quarters of an hour in Latin and the other quarter in English, and using a different subject each year for six years, when the cycle was to be repeated. Thus it happened that William Harvey gave his first anatomical lecture in April 1616, when he was thirty-seven years of age. The manuscript notes, now in the British Museum and reproduced in facsimile in 1886, were written in a crabbed and difficult hand. In his lecture on the thorax, however, one can make out the following passage: "The movement of the blood is constantly in a circle and is brought about by the beat of the heart." The lecture was given in the usual manner of the time. Harvey, with a wand in his hand, sat opposite the center of a table upon which was placed the partly dissected cadaver, ready to point out the different structures as they were exposed by his assistants. His audience, grouped around the other side of the table, was usually placed according to age and rank.

Thus, twelve years before the publication in Frankfort of "De Motu Cordis," Harvey believed that the blood moved in a circle, and we know from observations stated in other parts of the manuscript that he had applied the ligatures to veins and made other experiments to prove his contention. The book, however, was his sober, painstaking account of his experiments and conclusions, written so carefully that his arguments will bear the closest scrutiny today without the detection of any major faults. The first editions of the book are now the pride of a few libraries and private owners. Even the splendid facsimile edition of 1894 is scarce. Fortunately, the Boston Medical Library possesses a first edition, which we hope will be much in evidence in 1928. It is also expected that Boston will in some way honor Harvey on the three hundredth anniversary of the publication of "De Motu Cordis."

## A NEW REGIUS PROFESSOR OF MEDICINE AT OXFORD

News has recently been received in this country of the appointment of Sir Edward Farquhar Buzzard, M.A., M.D., (Oxon.) F.R.C.P., to the Regius Professorship of Physic in the University

of Oxford in succession to Sir Archibald Garrod, who was to have retired before January 1st, 1928. Sir Farquhar Buzzard is a distinguished English neurologist, long associated with St. Thomas' Hospital and, from 1905 to the time of his resignation in 1921, with the National Hospital for the Paralyzed and Epileptic (now the National Hospital, Queen Square), in London. He also holds the position of Physician Extraordinary to the King, physician to the Royal Free Hospital, and physician to the Belgrave Hospital for Children. During the War, he attained the rank of Colonel in the Royal Army Medical Corps and was later appointed consulting neurologist to the Queen Alexandra Military Hospital, Millbank.

Sir Farquhar was born in London, December 20, 1871, the son of Dr. Thomas Buzzard, a distinguished neurologist and soldier of the Crimean War. He attended the Charterhouse School before entering Magdalen College, Oxford, where he obtained his M.A. and later his M.D. degrees. In the early nineties of the last century, he was noted as an association football player and he won many cups in this and other sports.

His professional career has largely been associated with St. Thomas' Hospital and the National Hospital, Queen Square. As a result of his work in these clinics numerous papers have appeared from his pen in the *Lancet* and *Brain*. In addition, he has made many contributions to well-known systems of medicine, including the article on "Myasthenia Gravis" in Volume VII of Allbutt & Rolleston's *System of Medicine*; a number of chapters in Latham & English's *System of Treatment*, Volume II, 1915; an article on "The Prognosis in Peripheral Nerve Injuries" in Jones' *Orthopedic Surgery of Injuries*, Volume II, 1921; the long chapter on "Diffuse and Focal Diseases of the Spinal Cord" in Osler & McCrae's *Modern Medicine*, Volume V; and a contribution on "Vascular Disturbances" in the *Oxford Medicine*, Volume VI, 1921.

Sir Farquhar Buzzard will hold a position at Oxford distinguished by a long line of famous predecessors. The Regius Professorship of Physic was founded by Henry VIII in 1546, the original stipend being £40 a year. Since that date there has been added to the chair the Mastership of the alms-house at Ewelme, in Oxfordshire (1617), and the Alrichian Professorship of the Practice of Medicine (1858). The incumbent prior to Sir Archibald Garrod was the late Sir William Osler. By virtue of his professorship, Sir Farquhar will be the official examiner in medicine for all candidates for the M.D. degree at Oxford, as well as a Curator of the Bodleian Library. He was created a Knight Commander of the Victorian Order early this year.

#### THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

SWETT, PAUL P. M.D. University and Bellevue Hospital Medical College 1904, F.A.C.S., Orthopedic Surgeon at the Hartford Hospital and the Newington Home for Crippled Children; Consulting Surgeon at the New Britain General Hospital, the Meriden Hospital, the Bristol Hospital, the Charlotte Hungerford Memorial Hospital, the Litchfield County Hospital, the Manchester Memorial Hospital and the Rockville Hospital. Member of the New England Surgical Society. His subject is "Treatment of Compound Fractures at the Hartford Hospital". Page 1257. Address: 179 Allyn Street, Hartford, Conn.

BLUMER, GEORGE. M.A., M.D. Cooper Medical College, San Francisco, 1891. Assistant in Pathology, Johns Hopkins University; Director of Bender Hygiene Laboratory, Albany, N. Y.; Professor and later Clinical Professor of Medicine, Yale University Medical School. His paper is entitled "A Note on Difficulty in Turning Over in Bed". Page 1260. Address: 195 Church Street, New Haven, Conn.

GARLAND, JOSEPH. A.B., M.D. Harvard 1919. Physician to Children's Hospital Department at the Massachusetts General Hospital; Assistant in Pediatrics at the Massachusetts Eye and Ear Infirmary and the Harvard Medical School. His subject is "A Physician of Yesterday". Page 1261. Address: 270 Commonwealth Ave., Boston, Mass.

APPEL, KENNETH E. A.B., Ph.D., M.D. Harvard 1924. Assistant Visiting Physician, Pennsylvania Hospital, Department of Mental and Nervous Diseases. He writes on "Medical Education: The Retrospect of a Recent Graduate". Page 1265. Address: Haverford, Pennsylvania.

PARKER, DAVID W. A.B., M.D. Harvard 1903, F.A.C.S., Surgeon, Eliot Hospital, Manchester, N. H.; Surgeon, Balch Children's Hospital, Manchester, N. H.; Consulting Surgeon Peterborough Hospital, Peterboro, N. H.; President of the New Hampshire Medical Society, 1926-1927. His paper is entitled "The President's Address" and was delivered before the New Hampshire Medical Society. Page 1268. Address: 967 Elm Street, Manchester, N. H.

JONES, DANIEL F. A.B., M.D. Harvard 1896. F.A.C.S., Associate in Surgery Harvard Medical School; Chief Surgeon East Surgical Service Massachusetts General Hospital; Surgeon New England Deaconess Hospital; Chief of Staff Palmer Memorial Hospital. His subject is "Co-operation Between the Family Physician and the Consultant". Page 1272. Address: 195 Beacon Street, Boston.

TOBEY, JAMES A. B.S., LL.B., M.S., Dr.P.H. Massachusetts Institute of Technology 1927. Lecturer on Public Health Law, Massachusetts Institute of Technology, Harvard University School of Public Health, Scientific Consultant, Borden Company, New York. His subject is "Public Health Administration in New Hampshire". Page 1276. Address: 350 Madison Avenue, New York City.

## POSTPONEMENT OF THE INDEX

The probable change of the title of the BOSTON MEDICAL AND SURGICAL JOURNAL after the nineteenth of next February presents a complication with respect to the apportionment of the number of weekly issues to the present volume.

If this change, which will be recommended by the Committee of Nine which has charge of the JOURNAL, is to be adopted by the Massachusetts Medical Society, a volume should be started under the new name.

Because of this expected change the present volume will be continued until the one hundred years of consecutive publication shall have been completed and, therefore, the publication of the index will be deferred and the issues of January and part of February 1928 will be included in Volume 197 and the index of Volume 197 will be published in February.

The new name of the JOURNAL will probably be the *New England Journal of Medicine* which will be more appropriate under present conditions because the Massachusetts Medical Society is now affiliated with the New Hampshire and Vermont Medical Societies in the publication of this JOURNAL.

The Maine Medical Association has shown a desire to also unite with the three States mentioned above when the designation "Boston" shall have been dropped.

## The Massachusetts Medical Society

## SECTION OF OBSTETRICS AND GYNECOLOGY

*What are the advantages and disadvantages of post partum vaginal examinations especially in the early days post partum?*

Although the average puerperal woman should not be examined immediately post partum there are a few instances in which a pelvic examination may be advantageous.

Let us first consider the disadvantage. No one will deny that a vaginal examination, especially in the early days post partum, increases the possibility of puerperal infection. However, if the examination is made under perfect aseptic precautions, this possibility is reduced to a very small minimum.

What advantage may be obtained? Not infrequently shortly following delivery a patient will have a high temperature and a corresponding increase in the pulse. Pelvic examination in some of these cases will reveal retained tissue, and the removal of this material with the finger, results in an immediate drop in temperature.

Again, early vaginal examination will tell how extensive a laceration there may have been into the vaginal vaults or even into the broad ligaments. Finally the very dangerous condition of inversion of the uterus can only be positively diagnosed by a pelvic examination.

One member of the committee makes it a point to examine every patient vaginally immediately after the expulsion of the placenta. Fresh gloves are always used, the examination is made under strict aseptic precautions, and he has never seen any ill effects follow this procedure.

Questions of a similar nature to the above will be discussed in the JOURNAL each week. They may be addressed to the Clerk of the Committee, in care of the JOURNAL and will be answered by members of the Committee of the Section of Obstetrics and Gynecology.

MEMORIAL TO THE LATE DR. WILLIAM  
FISKE WHITNEY

REMARKS BY DR. GEORGE BURGESS MAGRATH AT  
THE UNVEILING OF A PORTRAIT OF DR. WHITNEY  
IN THE WARREN MUSEUM OF THE HARVARD  
MEDICAL SCHOOL ON NOVEMBER 18, 1927

On Friday afternoon, November 18, 1927, a portrait of the late Dr. Whitney painted by Mr. Ipsen and donated by a group of Dr. Whitney's friends was unveiled and presented to the Warren Museum of Harvard University. Dr. S. Burt Wolbach, Jackson Professor of Pathological Anatomy, was the presiding officer; he introduced Dr. George Burgess Magrath, Instructor in Legal Medicine at the Harvard Medical School. Dr. Magrath's address follows:

One Saturday morning, nearly thirty-five years ago, I attended my first surgical clinic. It was a public clinic, in the Bigelow Amphitheatre of the Massachusetts General Hospital, and I was a junior in Harvard College. My interest in medicine was but rudimentary. Toward the end of the clinic, a patient, a man deeply etherized, seated in an operating chair, was wheeled into the amphitheatre, and presented by a surgeon,—I think it was Dr. Warren,—was explaining to the spectators the significance and possibilities of a well marked swelling of the lower jaw. After a few minutes he made an incision, and deftly removed something which he placed in the hands of a physician who, clad in a white duck coat, short, and unlike the frock coat of similar material worn by the surgeons, rose from a front seat, received the material, and disappeared. Dr. Warren continued with his discussion of the case, and told of what he might be obliged to do if the tumor from which the patient suffered was malignant. Meantime all operative activities were suspended. In a very short time the physician in the short white coat reappeared, spoke a few words to Dr. Warren, and then addressing the

spectators, explained to them that this patient was the victim of a malignant new growth, of a sort such that radical operation by the surgeon was necessary. Dr. Warren resumed his operative work, and I presently beheld what seemed to me a most destructive dissection, involving as it did, the removal of a part of the lower jaw, and what I later realized to have been an elaborate dissection of the triangles of the neck. Deeply impressed by the apparent importance of whatever was done by the physician who temporarily disappeared from the operating theatre, and by the significance to the surgeon, and therefore to the patient, of what he had said, at the end of the clinic I ventured to speak to him and to ask him how it came about that he was able to tell Dr. Warren something which obviously governed a most serious, and seemingly mutilating surgical operation. I was not unfamiliar with the use of the microscope, and as a student of biology had been trained in the art of making sections of botanical material by the use of the razor. In the next few minutes this physician taking me into a small laboratory opening from the amphitheatre, introduced me to the freezing microtome, and to the methods which he had used in determining the character of the material handed to him by Dr. Warren. This he did with the utmost kindness, and with a simplicity and clarity which I can never forget. Such was my first meeting with Dr. William Fiske Whitney, Pathologist to the Massachusetts General Hospital.

Within less than two years' time I was a student of medicine, and as such, and fairly early in my career, was given a desk in the Sear Pathological Laboratory where my meeting with Dr. Whitney was a matter of almost daily occurrence. Acquaintance ripened into friendship, and friendship in the course of year broadened into professional companionship. I came to know Dr. Whitney as a man not only skilled in the particular field of medical science which I have chosen as my own, but one possessed of the instincts and of the modes of expressing them, which alike encouraged me younger than himself, and forever endeared him to them, whether as teacher or as adviser. A time went on I became aware of the great confidence placed in him by surgeons, as a diagnostician of malignant disease. I also came to recognize in Dr. Whitney the type of man who finds his chief professional interest in that side of medicine which is invested in the romance of the laboratory, wherein one is confronted constantly with the eternal question "What is wrong, why is it so, and what can be done about it?" rather than with the possibly more business-like side of medicine, wherein the results of scientific inquiry are applied with all of the art of the surgeon and the physician. The rewards of such activities are meagre from a money standpoint, and he who engages in them must seek his compensation in other media.

During the years in which as a member of the Department of Pathology, I was a teacher in this subject, and from time to time a contributor to the Museum, I came to know of Dr. Whitney's resourcefulness in supplying material for demonstration, and his sagacity in selecting material appropriate for permanent preservation.

During the later years of our friendship, I was from time to time privileged to be associated with Dr. Whitney in endeavors the object of which was, in the words of Casper, the Father of Legal Medicine, "the discovery and preparation of medical and other facts of natural science for the ends of law and justice."

And so we come to the especial purpose of this foregathering in the fulfillment of which it is my high privilege to participate.

Some time ago, a group of Dr. Whitney's friends, cherishing his memory, and wishful for its perpetuation by portraiture, with the approval of Mrs. Whitney, invoked the assistance of Mr. Ipsen who from available sources, with exquisite taste and commanding skill, has executed the difficult task of creating a posthumous likeness.

To me has fallen the honor of acting as spokesman for these friends. It is their wish that this portrait of Dr. Whitney shall pass into the keeping of the Medical School of Harvard University, forever to be a memorial of one who served his University long and ably, and who loved it well.

Therefore in the name of these friends, here in this historic museum, this great storehouse of potential medical knowledge, so largely the creation of his own genius and the work of his own hands, I unveil for your appreciation this likeness of Dr. Whitney, and to you Sir, honored Dean of the Faculty of Medicine, I present this portrait to hang upon these walls in perpetual memory of William Fiske Whitney: pioneer clinical microscopist, skilled in the differential diagnosis of new growths dangerous to life; trusted counsellor of the surgeon; wise conservator of material essential to the objective study of the medical sciences; dignified, conservative, impartial witness; courteous, kindly gentleman; sincere, sympathetic, steadfast friend; unselfish benefactor of humanity.

## MISCELLANY

### PHYSICIANS IN CONGRESS

Of the 96 members of the present United States Senate only one is a physician. Of the 435 members of the House of Representatives only seven are members of the medical profession. The Seventieth Congress, like most previous Congresses, is comprised chiefly of lawyers, with a sprinkling of farmers and business men.

The only physician in the Senate is Dr. Royal S. Copeland of New York. A graduate in medicine of the University of Michigan, Dr. Copeland was serving as Commissioner of Health of New York City when elected to the Senate in 1922. Another senator,

Woodbridge N. Ferris of Michigan, studied medicine for a year or two at the University of Michigan, but did not graduate. Senator Henrik Shipstead of Minnesota is a dentist.

Michigan and New York also contribute a large share of the few physicians and dentists in the House. From Michigan there is Dr. Frank P. Bohn, a graduate of the Medical College of Indiana, while from New York come Dr. John J. Kindred and Dr. William I. Sirovitch. Dr. Kindred is a lawyer as well as a doctor and is particularly interested in mental diseases. He is serving his fifth term, but Dr. Sirovitch, who got his M.D. from Columbia, is now in his first Congress. The two dentists in the House are Dr. R. O. Woodruff of Michigan and Dr. Frank Crowther of New York.

The remaining physicians in the House come from further west. Illinois contributes Dr. Ed. M. Irwin, a graduate of the Missouri Medical College, now on his second term. From Ohio there is Dr. William T. Fitzgerald, who received his "M.D." from Wooster University Medical School, and who has also once been reelected to Congress. Dr. J. Howard Swick of Pennsylvania is in Congress for the first time. He is a graduate of the Hahnemann Medical College of Philadelphia. From the Pacific Coast comes Dr. John W. Summers of Washington. After graduating from Louisville Medical College he practised for 25 years until he was elected to the Sixty-Sixth Congress and has been reelected ever since. One other Congressman, who is a lawyer, but who studied medicine for two years, should also be mentioned. He is Stephen G. Porter of Pennsylvania.

#### LOOKING BACK OVER THE YEAR'S HEALTH WORK IN CONNECTICUT

##### VITAL STATISTICS

With two months of records still to be received the favorable record so far makes it seem certain that the year will result in lowered and almost assured record low rate.

There has been a great falling off in the number of births recorded and consequent low birth rate.

One of the interesting new methods used through the year 1927 is the allocation of all deaths and births to the locality where they ought to be statistically considered. This procedure should give a much better index of the true health conditions. This will be certainly felt in the records of infant mortality, where the need of adjustment has long been felt but never before attempted.

##### SANITATION

Perhaps the most striking achievement in the field of sanitation has been the abolition of unguarded connections between public water supply systems and auxiliary fire or mill supplies of questionable quality, thus doing away with conditions in many communities whereby polluted water might be pumped into the public drinking water mains.

Surveys of several questionable shellfish areas were carried to completion and as a result, three areas of considerable size were closed by the department for market purposes, assuring the safe quality of Connecticut shellfish.

Poor analyses of sea water in polluted harbors used for bathing, obtained during shellfish studies, were called to the attention of local authorities and stimulated interest in the general condition of bathing beaches, some of which are near the border line of safety.

We can once more be thankful that another year has elapsed with no known cases of water-borne disease from public water supplies. The continuance of this excellent record requires eternal vigilance by local and State authorities.

##### LABORATORY

The close of 1926 found that the laboratory quarters had become so crowded that additional space was added during the year and entirely remodeled. There is now ample room for considerable growth.

With additional space two new tests were made possible: Routine examination of samples of raw and treated sewage from the various municipal and institutional treatment plants in co-operation with the State Water Commission and the Bureau of Sanitary Engineering; routine examinations of all certified milk handlers undertaken at the request of the State Milk Regulation Board. Monthly examinations have been made from each person who comes in contact with certified milk; these included cultures from the nose and throat for diphtheria bacilli, for the organisms of Vincent's angina, and for hemolytic streptococci; sputum for tubercle bacilli; feces and urine for the detection of typhoid carriers, while all new employees have their blood examined for typhoid.

The Laboratories also began the manufacture of wax ampules of silver nitrate for distribution to the physicians of the State for use in the eyes of newborn babies.

##### MENTAL HYGIENE

The psychiatric clinic in Meriden held there in co-operation with the Connecticut State Hospital, examined fifty-nine patients in the course of fifteen clinic sessions, carried on an educational campaign in mental hygiene, and offered special service to various organizations notably the schools.

From the angle of statistics the Division has conducted three surveys, one based on monthly reports from public and private institutions for nervous and mental disease, one on monthly reports from psychiatric clinics, and one covering facilities, capacity and diagnostic distribution of cases in private sanitaria.

##### CHILD HYGIENE

Well child conferences still forming the major part of the work have been increased to 50 by the addition of four during the year, at Orange, Beaver Brook, Glastonbury and Plainville. Three child hygiene nurses who are located in Winsted, Middletown and Willimantic have each the responsibility of fifteen well child conferences with their attendant follow-up work.

Sixteen summer round-ups have been held in a corresponding number of communities in the State. The examination of 530 children, brought out the fact that among these, 968 defects were found, 188 of which were serious enough to be reported to the family physicians. The name of this movement explains itself, namely, an effort to make these children who will enter school in the fall for the first time 100 per cent. physically fit.

Putting into motion the machinery of printing and distributing 250,000 May Day milk bottle tags carrying with them an appeal for clean milk for children, represented an extensive part of the health work in the May Day program.

##### PUBLIC HEALTH NURSING

The outstanding event of the year has been the passing by the last Legislature of the bill for State aid to towns for public health nursing which makes possible the extension of public health nursing in many of the smaller towns of the State.

The towns, Westbrook and Cornwall, have already taken advantage of this privilege by organizing public health nursing services, the towns having appropriated their pro rata share of the expenses.

##### PUBLIC HEALTH INSTRUCTION

Over one hundred towns and cities in the State have had some form of special health service includ-

ing moving picture films, health talks, films, slides and exhibits. Fifty-eight of these were villages and towns under 5,000 population and so the outlying sections of the State were reached.

One of the important activities was the health talks given by members of the staff. Over two hundred and fifty of these were given reaching over twenty-five thousand people.

The film library had nine additions. Condemned, Public Health Twins, He Who Laughs Last, Malaria, High Road, Sun Babies, A Far Chance, A Fortunate Accident and four copies of New Ways for Old. The last film has been in constant use in localities where active campaigns for diphtheria immunization have been carried on, as well as in many other towns in the State.

The Nutrition Handbook has been published and distributed to local leaders throughout the State.—*Bulletin Connecticut Department of Health.*

#### COMPARATIVE FOREIGN AND U. S. A. DEATH RATES FOR YEARS 1910—1919—1926

Tabulation shows—

A—The Countries.

B—Death rate per 1,000 for 1910.

C—“ “ “ “ 1919.

D—“ “ “ “ 1926.

E—Decrease in per capita death rate in 1926 as against 1919.

F—The number of deaths in the U. S. that were in excess of what would have been the total deaths in the U. S. if the U. S. had the same reduction in its per capita death rate, from 1919 to 1926, as the foreign countries named in first column on basis of U. S. population (1926) 117,136,000.

Country	1910	1919	1926	Decrease		"C" American less Deaths in "D" 1926
				E	F	
United States	15.0	12.9	12.1	.8		
England and Wales	13.5	14.0	11.7	2.3	175,500	
Scotland	15.3	15.4	13.0	2.4	187,500	
Irish Free State	16.5	17.6	13.6	4.0	375,000	
Germany	16.2	15.6	11.7	3.9	363,000	
Norway	13.5	13.8	10.6	3.2	281,000	
Sweden	14.0	14.4	11.8	2.6	211,000	
Denmark	12.9	13.0	11.0	2.0	140,500	
Holland	13.0	10.8	9.8	1.0	23,500	
Switzerland	15.1	14.2	11.7	2.5	199,000	
Belgium	15.2	15.1	12.9	2.2	164,000	
France	17.8	19.3	17.5	1.8	117,000	
Spain	22.9	23.3	19.7	3.6	328,000	
Italy	19.2	17.4	16.6	.8		
Austria	—	20.2	14.8	5.4	539,000	
Czecho-Slovakia	20.5	18.4	15.6	2.8	234,500	
Hungary	23.4	20.0	16.6	3.4	304,500	
Bulgaria	23.2	20.2	20.0	.2	70,500	
Japan	21.1	22.8	19.2	3.6	328,000	
Australia	10.4	12.7	9.4	3.3	293,000	
New Zealand	—	9.7	9.5	.8		
Canada	15.6	13.7	11.4	2.3	175,500	
Average by Countries	16.5	16.3	13.7	2.6	211,000	
Total American Soldiers killed in action in World War	—	—	—	—	50,510	
Foreign countries average decrease 1919 as against 1910	—	—	—	—	2	
U. S. decrease 1919 as against 1910	—	—	—	—	2.1	
U. S. decrease 10½ times the average foreign decrease.	—	—	—	—		
Foreign countries average decrease 1926 as against 1919	—	—	—	—	2.6	

U. S. decrease 1926 as against 1919 ..... 8  
Average foreign decrease 3½ times the U. S. decrease.

Compiled from Official Reports by  
E. CLEMENS HORST.

#### RECENT DEATHS

**SHERWELL**—Dr. SAMUEL SHERWELL, of Brooklyn, traveller and practitioner of dermatology, a graduate of Bellevue Hospital Medical College in 1868, is dead in that city in his eighty-sixth year. Dr. Sherwell a few years ago wrote "Old Recollections of an Old Boy." He was born in England and came to this country in 1858 in the United States frigate Niagara, which was laying the Atlantic cable. After spending some time in the Rocky Mountain regions, he joined the rush to the oil fields of Pennsylvania. In 1870, when the Franco-Prussian War began, he joined the Anglo-American Ambulance, an organization of English and American physicians which served with the German forces. Dr. Sherwell was decorated subsequently with the Cross of the Military Order of Merit by the Bavarian Government. He was Professor Emeritus of dermatology in the Long Island College Medical School. He went to France in 1915 to offer his services to the American Ambulance Corps in the World War, but was rejected on account of age.

**COHEN**—Dr. JACOB SOLIS-COHEN, noted laryngologist, died in Philadelphia, December 22, 1927, at the age of 69.

Dr. Solis-Cohen was born in New York on February 28, 1838, the son of Myer David and Judith da Silva Solis-Cohen. He attended Jefferson Medical College in 1856-7 and the next year he spent in Memphis. In 1859 he entered the Medical School of the University of Pennsylvania. After his graduation from the Medical School he was resident interne at the Philadelphia Hospital, but had served but six months when the guns boomed at Sumter, and he resigned to enlist in the Twenty-sixth Regiment, Pennsylvania Volunteers, the first regiment which signed to serve for the continuation of the war.

He served as assistant surgeon in the regiment until September, 1861, when he resigned to accept an appointment as assistant acting surgeon of the Navy. In 1864 he became visiting surgeon to the two Federal military hospitals in Philadelphia.

He won three decorations for valor during the war, besides the Congressional Medal of Honor awarded half a century later.

On resuming his career in Philadelphia in 1866 Dr. Solis-Cohen applied himself to the study of the then new science of laryngoscopy. In 1867 he performed the first successful operation for laryngeal cancer. In the same year Jefferson College appointed him lecturer on electro-therapeutics. Upon the establishment of the summer school in 1869 he was appointed lecturer on laryngoscopy and diseases of the throat and chest.

He was one of the founders of the American Laryngological Association and served two terms as its president. He was president of the Northern Medical Association in 1875, and vice-president of the Philadelphia Pathological Society from 1876 to 1883. Dr. Solis-Cohen presided over a meeting of the section on diseases of the throat at the International Medical Congress in London in 1881. At the time of his death he was honorary professor of laryngology at Jefferson Medical College.

## OBITUARY

## FRANCIS W. PEABODY

To write of the life of a friend so soon after losing him is a difficult task. For, however widely shared, there is a quality of intimacy in sorrow which is not easily set aside. However, it is fitting that someone who has had the happiness

of personal as well as professional association, outside of professional circles, as are many far less important, but more obviously applicable contributions. Time always corrects this—since even to the lay mind, there is eventually revealed the solid masonry of sound foundations—when the superstructures have been modified, or



FRANCIS WELD PEABODY

with Francis Peabody should convey to Harvard men generally that in his death the University has lost the youngest and dearest of her very eminent men.

The labours of a teacher and investigator whose interests are concentrated upon the patient development of fundamental knowledge are not as likely to gain wide contemporary recogni-

tion, outside of professional circles, as are many far less important, but more obviously applicable contributions. Time always corrects this—since even to the lay mind, there is eventually revealed the solid masonry of sound foundations—when the superstructures have been modified, or

have crumbled. The work of Francis Peabody had this fundamental quality, an inevitable consequence of the nature of his character and mind.

At the time of his graduation from the Harvard School, medicine was entering an era of transformation. It was a period of enthusiasm and rapid progress, stimulated by the increasing

application of biochemical methods to its problems. A new group of young disciples, trained in chemistry and physics, was carrying the laboratory into the clinic, and of these he became an acknowledged leader. Adventuring in his early studies into a variety of fields, with the usual versatility of an eager young intelligence confronted with the unmined treasures of medical opportunity, he soon concentrated upon the problems involving chemical methods, and submitted himself to the rigid disciplines of the laboratories of Emil Fischer and of Fresenius. The choice of these two great teachers in itself is significant of the point of view with which he approached his work. The former was the great father of biochemistry; the latter the tried and severe teacher of professional chemists who flocked to his odorous laboratory (in a private house on the Kapellenstrasse in the little town of Wiesbaden) from every corner of the world.

It would serve no useful purpose to catalogue the various publications which resulted from Francis Peabody's many investigations. The quality of his work was always sound and thorough and, in many instances, brilliant. His contributions to the clinical aspects of the vital capacity of the lungs and to the metabolism of the respiration will remain as cornerstones of these branches of knowledge. His later papers on normal bone-marrow and on the pathology of the bone-marrow in pernicious anemia are permanently written into the literatures of these subjects, and supplemented the investigations of his devoted friend, George Minot, in one of the most beneficent therapeutic discoveries of our time. A survey of the succession of his scientific papers shows beyond all else a constant growth in scope and understanding, a development toward something greater of which his death has robbed us.

It is not often that this capacity for scientific concentration is combined with keen interest in men, and in its consequence—public service. There was in Francis Peabody so much joyful youth—such abundance of vitality—that, far from becoming the scientific recluse, he gave himself, with adventurous ardor, to the causes that appealed to him. In July, 1917, he joined the American Red Cross Commission to Roumania, later going on to Russia where he was deeply stirred by the turmoil of the second revolution, which he witnessed. On his return, he enlisted in the military service and went to France as a major in the U. S. Army Medical Corps, remaining on the active list until February after the armistice.

In an age and in a country so often charged with superficial judgments and the tendency to applaud pretense and sham, it is an encouragement to optimism to know that the fine intelligence of his work and the noble simplicity of his character were fully recognized by his profession. Upon no man were its honors more lavishly bestowed. None but those most intimately

associated with him knew that he had been offered, in turn, the chairs of medicine at the University of Chicago, at Columbia, at Johns Hopkins, at Yale and at Stanford University as well as the deanship of the Chicago University Medical School—all of them declined in order to serve Harvard as Professor of Medicine and Director of the Thorndike Memorial of the City Hospital, where he developed an institution unique in the history of clinical teaching.

In writing these things of him who was so dear to us, there is the great danger of giving the impression of conventional eulogy—a risk which no one who knew him well would willingly incur. But bearing this in mind, and realizing the uncertainty of prophecy, we feel quite justified in believing that what Osler, the pathologist, was to the preceding generation, Francis Peabody, the physiologist, would have been to our own. For, far as he had gone, he died in full flight—growing in strength, the capacities of his heart and mind still unfolding.

These things are recorded; for the true history of a University lies in the achievements of its distinguished men. But to those who were his associates and friends the material facts of his career seem hardly more than incidental to the real meaning of his life. For, as Carlyle says of Schiller, “the man’s heart, which few knew, was as true and noble as his genius, which all knew”. No reading of his works, no study of his outward accomplishments, no appraisal of the high places which he held can give a measure of his worth. The quality of his spirit is perhaps best witnessed by the last paragraph of his own paper on the “Care of the Patient”:

“The good physician knows his own patients through and through, and his knowledge is bought dearly. Time, sympathy and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.”

These, his own words, describe his relationship to his work more accurately than any we can substitute. He gave himself lavishly and was made happy by the good he did to others; and he loved his fellows with a grave and tender wisdom which included their minds and their spirits in his ministrations, as well as their bodies.

Small wonder that a man possessing this happy combination of gifts should prove an inspiring teacher. Youth is critical and pitilessly keen to discern pedantry and fatuousness, however clothed in learning. And great teaching—however pedagogy may reorganize it—will always, like great medical practice, be a personal matter. The students who competed for admission to his courses, who voted his work the most profitable of their apprenticeship, who brought to him for his scrutiny and counsel their perplexities and tribulations, who came in great numbers, dry-

eyed, as he would have had them, to do him homage at the service in King's Chapel—the medical students of Harvard knew him at his true value; and theirs, indeed, is the greatest loss, for they must do without the wise companion in patient study who would have remained young with them though he had lived to four-score years; and through them is the greatest loss, for in each of them something of his spirit went out into the world.

One tries to see his life as a whole, one searches one's memory for contacts and episodes to make sure that—were he looking over one's shoulder—he would not find one guilty of what he hated most, overstatement and fulsomess. But one gathers only wonder at the inner symmetry of intelligence and heart which made his life a blessing and his death an inspiring lesson. Indeed, the proof of a man's life—how much has been the living of a formula and how much an inward light—may often be found in the manner of his facing death. For courage is still, as it has always been, a thing of great beauty, that springs, whatever its form of expression, from an inner source of moral power. We wish, for ourselves and the ordinary human being, a swift and merciful death, which is most easily supported with dignity and composure. For him we would not have had it other than it came. Those who were fortunate in seeing him during those eighteen months when he and death sat face to face—who dreaded their first visits and came out glad and inspired with a new faith in the nobility and courage to which rare men can attain—these know that the ugliness and cruelty of death were defeated. Death had no triumph, and he died as he had lived—with patience and love and submission in his heart, with the simple faith of a trustful child, and the superb gallantry of a great soul.

## FRANCIS WELD PEABODY

Born—November 24, 1881.

Degrees—A.B., Harvard, 1903.

M.D., Harvard, 1907.

## Positions—

Intern, Massachusetts General Hospital, 1907-1908.

Assistant Resident Physician, Johns Hopkins Hospital, 1908-1909.

Fellow in Pathology, Johns Hopkins Hospital, 1909-1910.

Student of Chemistry, University of Berlin, 1910.

Assistant Resident Physician, Hospital of the Rockefeller Institute, 1911-1912.

Assistant of the Rockefeller Institute, 1911-1912.

Resident Physician, Peter Bent Brigham Hospital, 1913-1915.

Member Red Cross Commission to Roumania, 1917.

Assistant Professor of Medicine, Harvard Medical School, 1915-1920.

Physician, Peter Bent Brigham Hospital, 1915-1921.

Consulting Physician, The Collis P. Huntington Memorial Hospital, 1915-1921.

Associate Professor of Medicine, Harvard Medical School, 1920-1921.

Professor of Medicine, Harvard Medical School, 1921.

Visiting Physician, Boston City Hospital, 1922.

Member China Medical Board of the Rockefeller Foundation, 1921-1922.  
Director of Thorndike Memorial Laboratory, 1922-  
Consulting Physician, Peter Bent Brigham Hospital, 1922-  
Member Board of Scientific Directors of the Rockefeller Institute, 1926-  
Visiting Professor of Medicine, Peking Union Medical College, September, 1921-February, 1922.

## PUBLICATIONS

1. On the value of malachite green media in differentiating typhoid and colon bacilli with the description of a new method for isolating typhoid bacilli from feces.  
With J. H. Pratt.  
Boston M. and S. J., 1908, clvii, 213.  
Ueber den Wert von Malachitgrunnahrboden zur Differenzierung von Typhus- und Colonbacillen. Beschreibung einer neuen Methods zur Isolierung von Typhusbacillen aus dem Stuhl.  
With J. H. Pratt.  
Centralb. f. Bakteriol., 1907, xiv, 550.
2. The Occurrence of typhoid bacilli in the stools of typhoid patients.  
With J. H. Pratt and A. D. Long.  
J. A. M. A., 1907, xlii, 846.
3. The Diagnosis of typhoid fever by cultures from the blood of the ear.  
Arch. Int. Med., 1908, i, 149.
4. The Bacteriologic diagnosis of typhoid fever.  
J. A. M. A., 1908, ii, 978.
5. A Note on the venous pulse in paroxysmal tachycardia.  
Arch. Int. Med., 1909, iv, 432.
6. Heart-block associated with infectious diseases.  
Arch. Int. Med., 1910, v, 252.
7. A Study of two cases of Adams-Stokes' syndrome with heart-block.  
With W. S. Thayer.  
Arch. Int. Med., 1911, vii, 289.
8. Epidemic poliomyelitis: the visceral lesions of human cases.  
With Simon Flexner and George Draper.  
J. A. M. A., 1912, lviii, 109.
9. A Study of the cerebrospinal fluid and blood in acute poliomyelitis.  
With George Draper.  
Am. J. Dis. Child., 1912, iii, 153.
10. A Clinical study of acute poliomyelitis.  
With George Draper and A. R. Dochez.  
Monographs of the Rockefeller Institute, 1912, No. IV.
11. The Pathology of acute poliomyelitis.  
New York State J. M., 1912.
12. The Carbon dioxide content of the blood in pneumonia.  
J. Exper. Med., 1912, xvi, 701.
13. Studies of the inorganic metabolism in pneumonia, with especial reference to calcium and magnesium.  
J. Exper. Med., 1913, xvii, 71.
14. The Action of pneumococcus on blood.  
With E. E. Butterfield.  
J. Exper. Med., 1913, xvii, 587.
15. The Oxygen content of the blood in rabbits infected with pneumococcus.  
J. Exper. Med., 1913, xviii, 1.
16. The Oxygen content of the blood in lobar pneumonia.  
J. Exper. Med., 1913, xviii, 7.
17. A Comparison of methods of obtaining alveolar air.  
With W. W. Boothby.  
Arch. Int. Med., 1914, xiii, 497.
18. Studies on acidosis and dyspnea in renal and cardiac disease.  
Arch. Int. Med., 1914, xiv, 236.

19. Clinical studies on the respiration. No. I. The effect of carbon dioxide in the inspired air on patients with cardiac disease.  
Arch. Int. Med., 1915, xvi, 846.
20. Clinical studies on the respiration. No. II. The acidosis of chronic nephritis.  
Arch. Int. Med., 1915, xvi, 955.
21. Observations on cardiac dyspnea.  
Tr. Assn. Am. Phys., 1915, xxx, 20.
22. Some aspects of the clinical study of the respiration: the significance of alveolar air analyses.  
Am. J. Med. Sc., 1916, cii, 184.
23. A Study of acidosis in three normal subjects, with incidental observations on the action of alcohol as an antiketogenic agent.  
With H. L. Higgins and R. Fitz.  
J. M. Res., 1916, xxxix, 263.
24. Clinical calorimetry. Sixteenth paper. The Basal metabolism of patients with cardiac and renal disease.  
With A. L. Meyer and Eugene F. DuBois.  
Arch. Int. Med., 1916, xvii, 980.
25. Tests of renal function from the standpoint of the general practitioner.  
Boston M. and S. J., 1916, clxxv, 158.
26. Some of the factors in the production of cardiac dyspnea.  
J. A. M. A., 1916, lxvii, 1136.
27. The vital capacity of the lungs, and its relation to dyspnea in heart disease.  
With John A. Wentworth.  
Tr. Assn. Am. Phys., 1916, xxxi, 433.
28. Recent advances in the study of heart disease and their significance to the general practitioner of medicine.  
Wisconsin M. J., 1917, xv, 255.
29. A Report of the Harvard Infantile Paralysis Commission on the diagnosis and treatment of acute cases of the disease during 1916.  
Boston M. and S. J., 1917, clxxvi, 637.
30. Clinical studies on the respiration. No. III. A mechanical factor in the production of dyspnea in patients with cardiac disease.  
Arch. Int. Med., 1917, xx, 433.
31. Clinical studies on the respiration. No. IV. The vital capacity of the lungs and its relation to dyspnea.  
With John A. Wentworth.  
Arch. Int. Med., 1917, xx, 443.
32. Clinical studies on the respiration. No. V. The Basal metabolism and the minute-volume of the respiration of patients with cardiac disease.  
With John A. Wentworth and Bertha I. Barker.  
Arch. Int. Med., 1917, xx, 468.
33. Relation of vital capacity of lungs to clinical condition of patients with heart disease.  
With Charles W. McCleve.  
J. A. M. A., 1917, lxix, 1954.
34. Report on the treatment of myelogenous leukemia with radium.  
Boston M. and S. J., 1917, clxxvii, 873.
35. Cardiac dyspnea.  
Am. J. Med. Sc., 1918, clv, 100.
36. The Basal metabolism in cases of the "Irritable heart of soldiers".  
With Joseph T. Wearn and Edna H. Tompkins.  
Med. Clin. N. Amer., 1918, 507.
37. Effects of the injection of epinephrin in soldiers with "Irritable Heart". Preliminary Note.  
With Harry D. Clough, Cyrus C. Sturgis, Joseph T. Wearn and Edna H. Tompkins.  
J. A. M. A., 1918, lxxi, 1912.
38. Some lessons of the war in the field of cardiac disease.  
Med. Clin. N. Amer., 1919, ii, 1469.
39. Respiration in disease.  
The Oxford Medicine, 1920, i, 399.
40. Cardiac Dyspnea.  
Nelson Loose-Leaf Living Medicine, 1920, iv, 301.
41. Epinephrin hypersensitivity and its relation to hyperthyroidism.  
With Cyrus C. Sturgis, Edna H. Tompkins and Joseph T. Wearn.  
A. J. Med. Sc., 1921, cxi, 508.
42. Clinical Studies on the respiration. VII. The effect of general weakness and fatigue on the vital capacity of the lungs.  
With Cyrus C. Sturgis.  
Arch. Int. Med., 1921, xxviii, 501.
43. The Vital capacity of the lungs in heart disease.  
Med. Clin. N. Amer., 1921, iv, 1655.
44. Acute poliomyelitis.  
The Oxford Medicine, 1921, v, 107.
45. A Report of the Harvard Infantile Paralysis Commission on the diagnosis of acute cases in 1920, with special reference to the incidence of cases without paralysis.  
Boston M. and S. J., 1921, clxxxv, 174.
46. Clinical Studies on the respiration. VIII. The relation of dyspnea to the maximum minute-volume of pulmonary ventilation.  
With Cyrus C. Sturgis, Francis C. Hall and Frank Fremont-Smith.  
Arch. Int. Med., 1922, xxvi, 236.
47. Clinical studies on the respiration. IX. The effect of exercise on the metabolism, heart rate and pulmonary ventilation of normal subjects and patients with heart disease.  
With Cyrus C. Sturgis and with the assistance of Bertha I. Barker and Margaret N. Read.  
Arch. Int. Med., 1922, xxvi, 277.
48. The Effect of pulmonary congestion on the ventilation of the lungs.  
With Cecil K. Drinker and Hermann L. Blumgart.  
J. Exper. Med., 1922, xxxvi, 77.
49. The Metabolism in diseases of respiration and circulation.  
With Edna H. Tompkins.  
Endocrinology and Metabolism, 1922, iv, 541.
50. The Physician and the Laboratory.  
Boston M. and S. J., 1922, clxxxvii, 324.
51. The Department of Medicine at the Peking Union Medical College.  
Science, 1922, lvi, 317.
52. The Clinical Importance of the vital capacity of the lungs.  
Addresses and Papers, Dedication Ceremonies and Medical Conference, Peking Union Medical College, September 15-22, 1921, Peking, China, 1922.
53. The Function of a Municipal Hospital.  
Boston M. and S. J., 1923, clxxxvii, 125.
54. The Clinical importance of the vital capacity of the lungs.  
Northwest Med., 1923, xxii, 307.
55. The Opportunity of the Section on Medical Sciences.  
Science, 1924, lxx, 136.
56. The Diagnosis and treatment of cardiac neuroses.  
Northwest Med., 1924, xxiii, 103.
57. Phagocytosis of erythrocytes in pernicious anemia. Preliminary Note.  
With G. O. Broun.  
J. A. M. A., 1924, lxxxii, 963.
58. Thorndike Memorial Laboratory.  
Methods and Problems of Medical Education, 1924 (first series), 113.
59. The Aspects of the respiration referable to the lungs.  
Tr. Assn. Am. Phys., 1924, xxxix, 52.

60. Blood pigments in pernicious anemia.  
With G. O. Broun, Olivia Ames, and Sylvia Warren.  
*J. Clin. Investigation*, 1925, i, 295.

61. Certain clinical aspects of pulmonary emphysema.  
*Med. Clin. N. Amer.*, 1925, viii, 1431.

62. Phagocytosis of erythrocytes in the bone marrow with special reference to pernicious anemia.  
With G. O. Broun.  
*Am. J. Path.*, 1925, i, 169.

63. A Case of diabetes insipidus.  
Tr. Assn. Am. Phys., 1925, xl.

64. Instructions for Clinical Clerks. Boston City Hospital, Fourth Medical Service.

65. A Study of 500 admissions to the Fourth Medical Service, Boston City Hospital. Foreword.  
Boston M. and S. J., 1925, xciii, 629.

66. The Function of the Hospital dietitian.  
*J. Am. Diet. Assoc.*, 1925, i, 82.

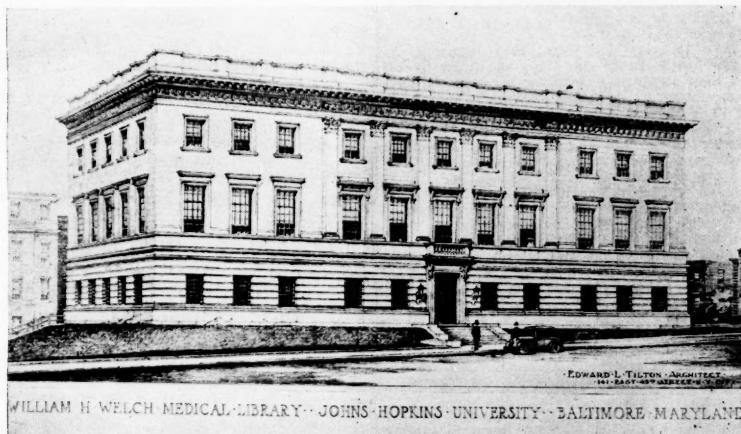
67. A Study of hyperplasia of the bone marrow in man.  
*Am. J. Path.*, 1926, ii, 487.

### NEWS ITEMS

#### THE WILLIAM H. WELCH MEDICAL LIBRARY

Work has already been started on the foundations for the new William H. Welch Medical Library at Johns Hopkins University. It will be situated on the corner of Wolfe and Monument Streets, in close contact with the rest of the Johns Hopkins Medical School and Hospital. The architecture is in the Renaissance style and the building, consisting of three stories and a basement, will be of granite and gray will be ready for occupancy by October, 1928.

The General Education Board of New York has made a single gift of \$750,000 and has agreed to give an additional \$250,000 for maintenance of the library and of the chair of the history of medicine on condition that the University raise \$500,000. Dr. William H. Welch, Director of the Library and Professor of the History of Medicine at Johns Hopkins University, is now in Europe studying medical libraries and collecting books. It is expected that the new library



Indiana limestone. The ground floor is to be occupied by the rough workrooms of the Library and a special department for cataloguing and binding books. A main staircase of marble leads up from the center of the ground floor, dividing in two on a half-landing. On this landing, in a niche, will be placed bust of Dr. Welch. The second floor will be partly occupied by a wide hallway running across the front of the building. On this floor also will be the Librarian's rooms and a general reading room, as well as a large reception room and a room for small entertainments. The third floor will be given up entirely to the history of medicine. There will also be a wide corridor across the front of the building on this floor and at either end study rooms, the Director's rooms and a small lecture hall seating about one hundred persons. The stack is to be in the rear center of the building, going up through the three stories; there will be room for 483,000 volumes. Various study alcoves are to be placed on each floor in close relation to the stacks.

The Library, in addition to being the general library for the Hospital and Medical School, has the unique feature of a whole floor devoted to the history of medicine. We have nothing in this country with which to compare this part of the library, except, perhaps, the Surgeon General's Library, which, although rich in material, is sadly lacking in facilities for students who wish to do research in the growing field of medical history. The William H. Welch Medical Library, under the guidance of Dr. Welch, will be in a splendid position to offer exceptional opportunities to students, both undergraduate and postgraduate.

**BOSTON DOCTORS WILL DELIVER ADDRESSES BEFORE THE NEW YORK ACADEMY OF MEDICINE**—On Thursday evening, January 5, 1928, Dr. Hans Zinsser will speak at the stated meeting of the Academy "On the Significance of Bacterial Allergy in Infectious Diseases."

On the evening of January 6 Dr. Daniel F. Jones

will speak before the Section of Surgery on "The Operative Treatment of Cancer of the Rectum", and on the evening of January 13 Dr. George L. Tobey, Jr., will speak on the "Diagnosis and Treatment of Infections of the Lateral Sinus".

APPOINTMENT OF DR. C. A. BONNER—Dr. Clarence Alden Bonner, Chief Executive Officer of the Boston Psychopathic Hospital, has been appointed Superintendent of the Danvers State Hospital, Hawthorne, Mass.

## NOTICES

### A CELEBRATION OF THE ONE HUNDREDTH ANNIVERSARY OF THE FIRST ISSUE OF THE BOSTON MEDICAL AND SURGICAL JOURNAL

An invitation is extended to all members of the Massachusetts Medical Society through this notification to attend a dinner in commemoration of the One Hundredth Anniversary of the first issue of the BOSTON MEDICAL AND SURGICAL JOURNAL, February 19th, 1828, to be held at the Hotel Somerset on Saturday, February 18th, 1928, at seven o'clock. Subscription \$5.00 for each person. Acceptances, with subscription, must be received by the BOSTON MEDICAL AND SURGICAL JOURNAL, 126 Massachusetts Avenue, Boston, Mass., before February 1st, 1928.

### UNITED STATES PUBLIC HEALTH SERVICE

#### CHRONOLOGICAL LIST OF CHANGES OF DUTIES AND STATIONS OF COMMISSIONED AND OTHER OFFICERS OF THE UNITED STATES PUBLIC HEALTH SERVICE

DECEMBER 14, 1927

Assistant Surgeon General Thomas Parran, Jr. Directed to proceed from Washington, D. C., to New York, N. Y., and return, in connection with venereal disease control studies being conducted by the Public Health Service. December 7, 1927.

Past Assistant Surgeon G. H. Faget. Directed to proceed from Ft. Stanton, N. Mex., to Clovis, N. Mex., and return, to attend meeting of the Pecos Valley Medical Association, and present an exhibit at the meeting on December 12-14. December 7, 1927.

A. A. Surgeon Albert S. Gray. Directed to proceed from New York, N. Y., to Washington, D. C., and return, during the week beginning December 11, 1927, in connection with industrial hygiene investigations. December 8, 1927.

P. A. Dental Surgeon (R) A. T. Ellison. Relieved from duty at Norfolk, Va., and assigned to duty at Marine Hospital No. 70, New York, N. Y. December 10, 1927.

Surgeon W. S. Bean. Directed to proceed from Ellis Island, N. Y., to Chattahoochee, Fla., to accompany patient to Florida State Hospital. December 10, 1927.

Assistant Surgeon General F. A. Carmelia. Directed to proceed from Washington, D. C., to Curtis Bay, Baltimore, Md., thence to accompany quarantine tug to Ft. Monroe, Va. December 12, 1927.

Surgeon G. C. Lake. Directed to proceed from Sta- pleton, N. Y., to Washington, D. C., and return, in connection with venereal disease control measures. December 12, 1927.

DECEMBER 21, 1927

Surgeon W. H. Frost. Directed to proceed from Baltimore, Md., to Lexington, Va., via Lynchburg, Va., and return, for conference with State Health Officers

regarding outbreak of poliomyelitis at Virginia Military Institute. December 13, 1927.

Surgeon J. G. Wilson. Directed to proceed from El Paso, Tex., to Columbus, New Mex., and such other points as may be necessary, and return, to investigate a reported outbreak of smallpox in the vicinity. December 14, 1927.

Surgeon J. D. Long. Directed to proceed from Balboa Heights, Canal Zone, to Washington, D. C., for instructions preliminary to attending the Sixth International Conference of American States to be held in Havana, Cuba, January 16, 1928, and thence to Havana, Cuba, to attend this conference. December 15, 1927.

A. A. Surgeon M. A. Roe. Relieved from duty at Chicago, Ill., and assigned to duty at M. H. No. 19, San Francisco, California. December 16, 1927.

Surgeon L. L. Williams, Jr. Directed to proceed from Richmond, Va., to Washington, D. C., on December 19, and return, for conference with Director of Bureau of Standards, regarding screen door tests in connection with malaria studies. December 17, 1927.

Also, directed to proceed to Washington, D. C., on December 22, 1927, to confer with Bureau officials in connection with malaria investigations. December 20, 1927.

#### BOARDS CONVENED

Board of medical officers convened to meet at Marine Hospital No. 70, 67 Hudson St., New York, on December 19, 1927, to re-examine candidate in Coast Guard for promotion.

#### Detail for Board:

Surgeon P. M. Stewart,  
Assistant Surgeon C. D. Kosar.

#### Official:

H. S. CUMMING, *Surgeon General.*

## REPORTS AND NOTICES OF MEETINGS

### THE NEW YORK CITY TUBERCULOSIS AND HEALTH CONFERENCE

The New York City Tuberculosis and Health Conference was opened on Wednesday, November 16, at the Biltmore. Dr. Walter H. Conley, General Medical Superintendent of the Department of Public Welfare, acted as chairman. Dr. Lawrason Brown, Chairman of the Medical Board of the Trudeau Sanatorium, was the first speaker, his subject being "Instructing the Tuberculosis Patient Under Institutional Care to Assure Permanency of Recovery". Dr. Brown stated that it had been his experience that most relapses occur within two years from the time of discharge. Because of this, classes have been formed for the instruction of patients ready for discharge and the importance of after-treatment has been emphasized. Ultimate results depend chiefly on the mentality of the patient, a questionable factor even in supposedly intelligent persons. If the interest of the patient can be secured so that he asks questions, the physician's task is made easier.

The discussion was opened by Dr. Edward S. McSweeney, Medical Director of the New York Telephone Company, who stated that, in his opinion, the chief factor in the care of patients is to teach them how to live. Dr. McSweeney believes that the sanatorium usually does its work well, but stated that difficulties often arise after the patient leaves the sanatorium, for his inclination is to make up for the time spent there by indulging in a more strenuous life than before. A prolonged period of well-conducted and well-regulated after-life is essential if permanent results are to be attained, but this does not mean that the patient must necessarily lead an invalid's life.

Dr. Anderson, Superintendent of the Loomis Sana-

torium, continued the discussion. He stated that there should be associated with each sanatorium a physician with teaching ability to instruct the patients regarding their after-life, but agreed with Dr. Brown that much depends on the patient's learning capacity. Permanent recovery exacts a price from the patient but when the price is paid there is a fair chance that tuberculosis will not recur.

A symposium on "Medical Education Opportunities in Tuberculosis Institutions" by Dr. Geza Kremer, Medical Superintendent, Sea View Hospital, Staten Island, New York City, followed. Dr. Kremer lamented the lack of cooperation between the general practitioners and Tuberculosis Institutions stating that practitioners often fail to avail themselves of opportunities in the Sanatoria. He suggested that some arrangement for a closer affiliation between the students and tuberculosis hospitals be made and recommended post-graduate work in bacteriological and x-ray laboratories.

Dr. George Ornstein, Attending Physician, Metropolitan Hospital, New York City, stated that patients often pass from one physician to another, with the result that varied diagnoses are secured and that the disease has often progressed to the advanced stage before the proper diagnosis is made. General practitioners should be able to recognize early tuberculosis. Patients suffering from tuberculosis need not always leave home for, although some require a dry climate, others improve in a climate not so dry and still others mend more rapidly at home than elsewhere. Dr. Ornstein reported that patients are usually willing to be examined by students and frequently enjoy discussing their cases with some one who understands.

Dr. Grant Thorburn, Visiting Physician, Tuberculosis Service, Bellevue Hospital, New York City, stated that the City Sanatoria offer educational advantages for physicians, nurses and patients. If students learn the proper technique for making examinations and possess a working knowledge of tuberculosis, diagnoses will often be made before physical signs are present.

Dr. Foster Murray, Attending Physician, Municipal Sanatorium, Otisville, New York, stated that educational advantages vary according to the location of the institution. It is his opinion that Manhattan is best for the education of students and that Otisville presents very excellent opportunities for post-graduate study. A six-month post-graduate internship is available together with an opportunity for learning diagnosis and details for management and treatment of patients. Dr. Murray believes that physicians should apply for service in city clinics and that post-graduate service in tuberculosis should be required. If this were done, students would be better trained for their chosen profession.

Dr. Linsky R. Williams, Managing Director, National Tuberculosis Association, stated that the audience which attended tuberculosis lectures was generally made up of specialists rather than of general practitioners. He suggested that extra interns should be admitted to Tuberculosis Sanatoria or that the general practitioner should in some way be given opportunity to learn more about tuberculosis. Examination of a patient may today reveal no symptoms of tuberculosis, but in ten days advanced symptoms may be discovered. If general practitioners secure the necessary information about tuberculosis their patients will usually have complete confidence in them. This is without doubt a most important factor in building up one's practice. The National Tuberculosis Association is now conducting a campaign for early diagnosis.

The Scientific Session was scheduled for 8:30 P. M. and was open to all interested in tuberculosis and public health. Dr. Henry S. Patterson, President of the Medical Society of the County of New York, read the Hermann M. Biggs Memorial Tuberculosis Lec-

ture by Dr. Allan K. Krause, Director of the Kenneth Dowd Foundation for Tuberculosis Research and Associate Professor of Medicine, Johns Hopkins University. The paper by Dr. Krause was entitled "Tuberculosis and Public Health". A brief resumé follows:

Disease has been believed to be the will of God and it would at one time have been considered sacrilege to attempt to control it. Today our defense is not perfect but advancement has been notable. Youths of 1927 can hardly realize what tuberculosis of thirty years ago really was. That our cities are the breeding grounds for tuberculosis is, according to Dr. Krause, unquestioned. Why does it seem to become rooted in all members of some communities? Because, in the opinion of many, it is a penalty exacted by higher civilization. But our age-long susceptibility is declining. In 1924 the urban death-rate had fallen considerably, but the rural death-rate is even now steadily growing. Some contend that people from the city are responsible for the increase in the rural death-rate from tuberculosis. This, however, has proved to be erroneous. From 1916 to 1921 there was a 12.6 per cent. increase in rural tuberculosis although there was a striking reduction in the cities, particularly in New York and Chicago. During the years 1815 to 1825 conditions in factories were a menace, and from 1825 to 1840 became a real problem. People throughout New England were leaving the country and moving to the larger centers. In 1830 immigration added to the complexity of the situation. Often the better class of immigrants moved West. Conditions in the mills became worse. Sanitation had not progressed and ventilation was poor. It is said that Lowell mills did not have more than one-eighth of the normal air space. But modern sanitation has changed all this and modern hygiene in the home has helped in the promotion of modern public health. There is not a single community that has not been benefited by it. The sanatorium has played an important part. The treatment of early cases has proved valuable and open windows have done much to combat this dread disease. Health for health's sake? No, health as a means.

#### HARVARD MEDICAL SOCIETY

The Harvard Medical Society held a meeting at the Peter Bent Brigham Hospital on December 13, 1927, at 8:15 o'clock. Dr. Taylor, formerly Professor of Neurology at the Harvard Medical School, presided. After the presentation of two cases, Dr. Walter B. Cannon, Professor of Physiology at the Harvard Medical School, spoke on "Neural Organization for Emotional Expression and Some Inferences Therefrom."

The first case was presented by Dr. Taylor, medical house officer. The patient entered the hospital for the first time some four years after a nervous breakdown and a cold lasting two weeks with some fever. She had noticed a rigidity of her muscles, a mask-like appearance to her face, and a monotone character to her speech which came slowly. Treatment with hyoscin improved her condition as it again did after removal to a convalescent home and subsequent readmission. She was again discharged and after a period of work she became almost an invalid with increased difficulty in walking, carrying her arms constantly flexed, and suffering with pains in her legs.

The diagnosis of Parkinsonian disease was made by observation. The patient showed a general rigidity, mask-like expression with difficulty in opening her mouth and protruding the tongue. The retinae showed a palleness on the temporal sides of the discs, and the power of convergence was somewhat lost. She had a monotone speech, increased deep reflexes, and a rigidity and tremor. The laboratory findings were practically normal. Sedatives were used in the treatment.

After this presentation Dr. Bailey made some pertinent remarks on encephalitis and Dr. Levine reviewed the evolution of this disease in the last eight years from encephalitis lethargica through the myoclonic and active forms to the present Parkinsonian type.

The second case of a brain tumor with character changes was presented by Dr. McLean. The patient, a Canadian of 39, came into the hospital about 18 months ago complaining of headache and an inability to see when looking towards the left. Neurological examination revealed a left homonymous hemianopsia, a bilateral choked disc of about two diopters, positive Babinski on the left side and a left ankle clonus. He was operated on ten days after entry and a temporal glioma was found and removed. The patient progressed fairly well until three months ago when he again began having headaches. His hemianopsia has never cleared. He was again operated on and a glioma the size of a small orange removed. The patient is now feeling well.

Dr. Cushing in a discussion with the patient elicited the tendency to jocosity often seen in these cases.

Dr. Cannon in his talk stated that emotions were always of great interest, forming a common meeting ground for biologists, philosophers, and moralists. As a typical emotion Dr. Cannon discussed "rage."

Rage like all emotions has several fundamental characteristics. It is first an inborn reaction. It is a prompt response, a constant and uniform response. It is a reaction understood by all people and by lower animals. It is a permanent state, the same reaction being obtained in the man as when he was a boy. It is a utilitarian response as shown by the glycogenolysis in the liver, the dilation of the bronchioles, the more rapid heart rate when rage is felt.

The question which arises is whether these emotions are similar to reflexes and if the basis for reaction lies in the cortex, brain, or cord.

Experiments have proved that the cord is not the seat of the response. A decorticate dog still exhibited the reactions of rage and fear. Additional evidence is obtainable by showing that under anaesthesia, when the cortical control is gone, the emotions still are exhibited. In hemiplegia the whole face responds to joy or sadness. In pseudobulbar palsy the face reacts to joy and rage, but to no other expressions. These and many other examples show that the cortex does not control emotions.

More experiments have shown that the center for emotions lies in the sub-thalamic region in the diencephalon.

Dr. Cannon then discussed the James-Lange theory of emotion, and showed where, in the light of recent experiments, it was untenable. Lange had postulated that all emotions were due to vascular changes, while James had gone further and ascribed emotions due to changes in all parts of the body, assuming visceral and postural factors. Dr. Cannon had removed all connections of the brain with the rest of the body and demonstrated that the dog still showed emotions of pleasure and rage. He also pointed out that not only are the viscera relatively insensitive with few afferent nerve fibers, but also that the latent periods of visceral changes are so slow as to preclude their foundation for a quick emotional change. As regards the postural factors Head and his co-workers in studying patients with unilateral lesions of the thalamus have shown that these can be ruled out because sensations which arise in postural feelings are lost in what is called increased "feeling tone." In this the patient gets an exaggerated response to small stimuli such as a warm test-tube applied to the affected side.

Having destroyed the old theory Dr. Cannon proceeded to build a new theory which he called the "Thalamic theory of emotion." This theory is based

on two premises. The first postulates neuron patterns in the thalamus. Responses are the results of these patterns which are found in brains of lower animals also. The second premise states that processes which go on in the thalamus originate in feeling activity in the thalamus, and result in the "feeling tone," referred to above, and differing by the various neuron patterns brought into action. One must not allow other changes such as glandular disturbances to lead one to obscure and faulty conclusions.

Dr. Cannon showed that the James-Lange theory does not explain unilateral feeling. Another objection to it is that it is concerned only with the sensory side of emotions with little attention to the impulsive aspects which certainly exist. One argument for it is that it accounts for the subtler emotions in which no visceral or postural changes are noted.

Much interesting discussion followed Dr. Cannon's explanation and arguments. Drs. Cushing, Bailey and Taylor took the lead in reconciling the theories with clinical aspects such as encephalitis in its various forms and sequelae, brain tumors, and unilateral brain lesions.

#### NEW ENGLAND HEART ASSOCIATION

The New England Heart Association will meet on January 19, 1928, at 8 P. M. in John Ware Hall of the Boston Medical Library, 8 The Fenway, Boston, Mass.

1. Effects of Accidents on Cardiac Employees. Dr. W. Irving Clark, Worcester, Mass.

2. Accidents and Heart Disease from the Insurance Company's Point of View. Gay Gleason, Esq., Boston, Mass.

3. Accidents and Heart Disease from the Court's Point of View. Commissioner Frank J. Donahue, Industrial Accident Board, Commonwealth of Massachusetts.

#### MEDICAL RESERVE CORPS

The January meeting of the Winter Training Course for Officers Medical Section, Organized Reserves, U. S. Army, in Boston and vicinity will be held on the 11th at the University Club, 40 Trinity Place, Boston, Mass.

The meeting will begin promptly at 8:00 P. M. The room number will be on the Announcement Board at entrance on first floor. Officers attending the meeting will be given credit for participation in military activities.

W. M. A. MURPHY.

Major, M. C. (DOL), Instructor.

#### MASSACHUSETTS GENERAL HOSPITAL

Staff Meeting, Moseley Memorial Building, Thursday, January 12, 1928, at 8:15 P. M.

1. Demonstration of Cases.

2. Fracture Service: (a) The Fracture Service of the Massachusetts General Hospital. Dr. Daniel Fiske Jones. (b) Fascial Transplants in Fracture Treatment. Dr. Arthur W. Allen.

3. Orthopaedic Service. Diagnosis in Arthritis. Dr. Nathaniel Allison.

Physicians, students and nurses are cordially invited to attend.

#### HARVARD MEDICAL SOCIETY

The next regular meeting of the Harvard Medical Society will be held as usual in the Amphitheatre of the Peter Bent Brigham Hospital, Tuesday evening, January 10, at 8:15 p. m. The program follows:

1. Presentation of Cases.

2. Dr. Reginald Fitz. The Modern Young Thing.

3. Dr. Harvey Cushing. Who put the fox in foxblood?

PERCIVAL BAILEY, Secretary.

## SOCIETY MEETINGS

**January 10**—Harvard Medical Society. Detailed notice appears on page 1295 this issue.

**January 11**—Meeting of the Winter Training Course, Medical Reserve Corps. Detailed notice appears on page 1295 this issue.

**January 12**—Massachusetts General Hospital Staff meeting. Complete notice appears on page 1295, this issue.

**January 19**—New England Heart Association. Detailed notice appears on page 1295, this issue.

**January, February, March and April, 1928**—Last Saturday at 11 A. M. Cheever Amphitheatre, Staff Clinical Meetings at Boston City Hospital.

## DISTRICT MEDICAL SOCIETIES

## Essex North District Medical Society

**May 2, 1928** (Wednesday)—Annual meeting at 12:30 P. M.

**May 3, 1928** (Thursday)—Censors meet for examination of candidates at Hotel Bartlett, Main Street, Haverhill, at 2 P. M. Candidates should apply to the Secretary, J. Forrest Burnham, M.D., 567 Haverhill Street, Lawrence, at least one week prior.

## Essex South District Medical Society

**February 1** (Wednesday)—Council meeting, Boston.

**February 8** (Wednesday)—Danvers State Hospital. Clinic at 4 P. M. Buffet supper at 6 P. M., followed by

Dr. Abraham Myerson, "Some Aspects of Mental Hygiene."

Discussion by Drs. W. F. Wood of Hathorne and G. M. Kline of Beverly, 10 minutes each, and from the floor.

**March 7** (Wednesday)—Lynn Hospital. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Henry R. Vlets, "The Acute Infections of the Nervous System," with lantern slides and moving pictures.

Discussion by Drs. W. V. McDermott of Salem and J. W. Trask of Lynn, 10 minutes each, and from the floor.

**April 11** (Wednesday)—Essex Sanatorium, Middleton. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Raymond S. Titus, "Obstetrical Emergencies."

Discussion by Drs. J. J. Egan of Gloucester and A. T. Hawes of Lynn, 10 minutes each, and from the floor.

**May 8** (Wednesday)—Censors meet at Salem Hospital for the examination of candidates at 3:30 P. M. Candidates should apply to the Secretary, Dr. R. E. Stone, Beverly, at least one week prior.

**May 8** (Tuesday)—Annual meeting. Place and speaker to be announced.

## Suffolk District Medical Society

Combined meetings of the Suffolk District Medical Society and the Boston Medical Library will be held at the Boston Medical Library, 8 The Fenway, at 8:15 P. M., as follows:

**January 25, 1928**—General meeting in association with the Boston Medical Library.

Dr. George W. Crile, Lakeside Clinic, Cleveland, Ohio.

Title to be announced later.

**February 29**—Surgical Section. Subject to be announced later.

**March 28**—Medical Section. "The Use and Misuse of Vaccines." Dr. Hans Zinsser, Dr. Francis M. Rackemann, Dr. Charles H. Lawrence.

**April 25**—Annual meeting. Election of officers. Paper of the evening to be announced later.

The medical profession is cordially invited to attend these meetings.

Notices of meetings must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

## BOOK REVIEWS

*Studies from The Rockefeller Institute for Medical Research.* Reprints, Volumes LVII, LIX, LX, LXI. 1927.

These reports bring together all the publications of the Rockefeller Institute. As a result they are an extremely easy way of locating work known to have come from this Institution. Of course they contain very many interesting papers which have been published by members of the Institute and demonstrate the creditable, scientific work which is being produced.

*"A Bipolar Theory of Living Processes."* By GEORGE W. CRIE. The Macmillan Company. New York. 1926.

A book fascinatingly written on the most fundamental of subjects. The reviewer hesitates to criticise this book because not understanding it completely himself, his tendency would be to condemn it as a vivid theory not supported by adequate facts. The book is excellent reading and stimulates many interesting new thoughts, but whether it is of great scientific value or not will remain for further workers to determine. It is a book in which it is very difficult to differentiate theory from fact.

*"Alkohol-Extrakt-Reaktion."* By DR. MED. W. LUTTIG und DA. PHIL. W. V. MEYER. S. Hirzel. Leipzig. 1927.

In this volume of 250 pages there is a long discussion of theory of the Abderhalden reaction. On this basis there is a discussion of the possibility of obtaining test tube reactions for the serological diagnosis of pregnancy, of the sex of the fetus, and of carcinoma. The evidence for these various tests is not given at length and it seems to the reviewer that the data for any conclusions does not appear large. The writers admit that this book merely describes progress. The reviewer would have been much more pleased with the book had data been presented of their actual experiences.

*"Physiology and Biochemistry in Modern Medicine."*

By J. J. R. MACLEOD, M.B. LL.D. (Aberd.) D.Sc. (Tor.) F.R.S. Fifth Edition. The C. V. Mosby Company. St. Louis.

A new edition of MacLeod's Physiology and Biochemistry in Modern Medicine is always an interesting development. This book for many years has been one of the best physiological text books and continues to improve with each new edition. MacLeod's Physiology is not only an excellent text book for physiological students at medical school but is the sort of book which practising physicians can gain much from perusing. It has become one of the few standard texts of this ever changing science, and can be recommended most highly to anyone interested in the science of physiology or its application to disease.

## BOOKS RECEIVED FOR REVIEW

*The Endocrines in General Medicine.* By W. Langdon Brown. New York: Paul B. Hoeber. 144 pages. Price, \$3.00.

*The Current Significance of the Word "Alum."* By William D. Richardson. Chicago: The Commonwealth Press. 93 pages.

*Surgical Clinics of North America.* October, 1927. Philadelphia: W. B. Saunders Co.

*Fighters of Fate.* By J. Arthur Myers. Baltimore: William & Wilkins. 318 pages. Price, \$3.00.

*La Diathermie et ses Applications Médicales.* By Paul Duhem. Paris: Gauthier-Villars et Cie. 71 pages.

*Epidemic Influenza.* By Edwin O. Jordan. Chicago: American Medical Association. 599 pages.

*Grundzüge der Röntgendiagnostik Innerer Erkrankungen.* By Felix Peltason. München: J. F. Bergmann.

*Your Growing Child.* By H. Addington Bruce. New York: Funk & Wagnalls. 405 pages. Price, \$2.50.

*Annual Report of the Surgeon General of the United States Public Health Service.* 1927. Washington: Government Printing Office. 355 pages.

*Max von Pettenkofer.* By Edgar Erskine Hume. New York: Paul B. Hoeber. 142 pages. Price, \$1.50.